

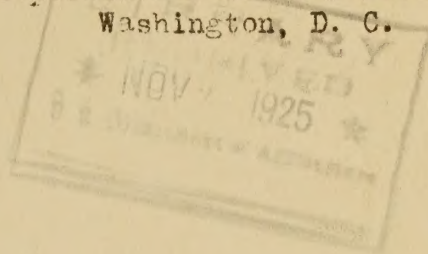
1. 9292 Ec
C. R. BARNETT

DEPT LIBRARY

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

1. EXTENSION

3 3 3 3 3 3 3
3 3 3 3 3 3 3
3 3 3 3 3 3 3

(To be used as a basis of classification of material on
extension for the Extension Service Handbook and will
be printed and issued as an appendix.)

40

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK

0. GENERAL
1. EXTENSION
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
26. ECONOMICS AND MANAGEMENT IN HOME
27. FOODS AND NUTRITION
28. HOUSING, EQUIPMENT, and FURNISHING
29. TEXTILES AND CLOTHING

APPENDIX - Master classification key.

1.	General
2.	Administration
3.	Finance
4.	Public Works
5.	Health
6.	Education
7.	Police
8.	Fire
9.	Sanitation
10.	Public Safety
11.	Public Health
12.	Public Welfare
13.	Public Works
14.	Public Safety
15.	Public Health
16.	Public Welfare
17.	Public Works
18.	Public Safety
19.	Public Health
20.	Public Welfare
21.	Public Works
22.	Public Safety
23.	Public Health
24.	Public Welfare
25.	Public Works
26.	Public Safety
27.	Public Health
28.	Public Welfare
29.	Public Works
30.	Public Safety
31.	Public Health
32.	Public Welfare
33.	Public Works
34.	Public Safety
35.	Public Health
36.	Public Welfare
37.	Public Works
38.	Public Safety
39.	Public Health
40.	Public Welfare
41.	Public Works
42.	Public Safety
43.	Public Health
44.	Public Welfare
45.	Public Works
46.	Public Safety
47.	Public Health
48.	Public Welfare
49.	Public Works
50.	Public Safety
51.	Public Health
52.	Public Welfare
53.	Public Works
54.	Public Safety
55.	Public Health
56.	Public Welfare
57.	Public Works
58.	Public Safety
59.	Public Health
60.	Public Welfare
61.	Public Works
62.	Public Safety
63.	Public Health
64.	Public Welfare
65.	Public Works
66.	Public Safety
67.	Public Health
68.	Public Welfare
69.	Public Works
70.	Public Safety
71.	Public Health
72.	Public Welfare
73.	Public Works
74.	Public Safety
75.	Public Health
76.	Public Welfare
77.	Public Works
78.	Public Safety
79.	Public Health
80.	Public Welfare
81.	Public Works
82.	Public Safety
83.	Public Health
84.	Public Welfare
85.	Public Works
86.	Public Safety
87.	Public Health
88.	Public Welfare
89.	Public Works
90.	Public Safety
91.	Public Health
92.	Public Welfare
93.	Public Works
94.	Public Safety
95.	Public Health
96.	Public Welfare
97.	Public Works
98.	Public Safety
99.	Public Health
100.	Public Welfare

1. EXTENSION

.0 General

.01 Terminology

.09 Miscellaneous

.1 History and development

.10 General

.11 Foreign countries

.12 United States

.19 Miscellaneous

.2 Personnel

.20 General

.21 Department

.22 State directors

.23 County extension agents

.29 Miscellaneous

.3 Policy and relationships

.30 General

.31 Duties of county extension agents

.32 Use of penalty envelope

.39 Miscellaneous

.4 Finances

.40 General

.41 Federal

.42 State

.43 County

.44 Local

.49 Miscellaneous

2. SUMMARY

3. General

4. Objectives

5. Scope

6. Methodology

7. Results

8. Discussion

9. Conclusion

10. References

3. BACKGROUND

11. General

12. Specific

13. State of the Art

14. Current research

15. Objectives

16. Methodology

17. Results

18. Discussion

19. Conclusion

20. References

4. CONCLUSIONS

21. General

22. Specific

23. State

24. Current

25. Results

26. Discussion

.5 Organization

.50 General

.51 Administrative and supervisory

.510 General

.511 National

.512 State

.513 District

.514 County

.519 Miscellaneous

.52 Cooperating agencies

.520 General

.521 Extension

.5211 National

.5212 State

.5213 County

.5214 Enterprise

.5215 Community

.5219 Miscellaneous

.522 Commodity

.5221 National

.5222 State

.5223 County

.5229 Miscellaneous

.529 Miscellaneous

.59 Miscellaneous

2. General

3. Administrative and Reporting

3.1. General

3.2. Planning

3.3. Staff

3.4. Budget

3.5. Control

3.6. Miscellaneous

4. Operating Division

4.1. General

4.2. Production

4.3. Distribution

4.4. Sales

4.5. Finance

4.6. Personnel

4.7. Community

4.8. Miscellaneous

4.9. Summary

4.10. Appendix

4.11. Glossary

4.12. Index

4.13. Bibliography

4.14. Appendix

.6 Program development

.60 General

.61 Basic agriculture and home economics

.610 General

.611 National

.612 Regional

.613 State

.614 County

.615 Enterprise

.616 Community

.619 Miscellaneous

.62 Extension

.620 General

.621 National

.622 Regional

.623 State

.624 County

.625 Enterprise

.626 Community

.629 Miscellaneous

.69 Miscellaneous

1. The first part of the report is devoted to a general survey of the situation in the country.

2. The second part of the report is devoted to a detailed examination of the various branches of the economy.

3. The third part of the report is devoted to a discussion of the social and political conditions of the country.

4. The fourth part of the report is devoted to a discussion of the foreign relations of the country.

5. The fifth part of the report is devoted to a discussion of the financial situation of the country.

6. The sixth part of the report is devoted to a discussion of the military situation of the country.

7. The seventh part of the report is devoted to a discussion of the administrative situation of the country.

8. The eighth part of the report is devoted to a discussion of the judicial situation of the country.

9. The ninth part of the report is devoted to a discussion of the educational situation of the country.

10. The tenth part of the report is devoted to a discussion of the health situation of the country.

11. The eleventh part of the report is devoted to a discussion of the population situation of the country.

12. The twelfth part of the report is devoted to a discussion of the labor situation of the country.

13. The thirteenth part of the report is devoted to a discussion of the housing situation of the country.

14. The fourteenth part of the report is devoted to a discussion of the food situation of the country.

15. The fifteenth part of the report is devoted to a discussion of the clothing situation of the country.

16. The sixteenth part of the report is devoted to a discussion of the fuel situation of the country.

17. The seventeenth part of the report is devoted to a discussion of the transportation situation of the country.

18. The eighteenth part of the report is devoted to a discussion of the communication situation of the country.

19. The nineteenth part of the report is devoted to a discussion of the culture situation of the country.

20. The twentieth part of the report is devoted to a discussion of the sports situation of the country.

21. The twenty-first part of the report is devoted to a discussion of the recreation situation of the country.

.7 Methods (teaching)

.70 General

.71 Objectives

.710 General

.711 Better practice

.712 Organized knowledge

.713 Habits of thought and study

.714 Appreciation and ideals

.719 Miscellaneous

.72 Psychological factors

.720 General

.721 Original nature

.722 Habit formation

.723 Language

.724 Reflection

.725 Personality

.726 Guardianship

.727 Individual differences

.729 Miscellaneous

.73 Steps in teaching

.730 General

.731 Determination of problem

.732 Preparation

.733 Presentation

.734 Association

.735 Generalization

.736 Application

.739 Miscellaneous

.74 Types of methods

.740 General

.741 Discussion

.742 Laboratory

.743 Demonstration

.744 Dramatic

.745 Lecture

.749 Miscellaneous

.75 Means and agencies

.750 General

.751 Oral

.7511 Office calls

.7512 Telephone

.7513 Farm and home visits

.7514 Meetings

.75141 Camp

.75142 Committee

.75143 Extension school, short
course

.75144 Farmers' institutes

.75145 Leader-training

.75146 Lecture

.75147 Organization

.75148 Tours

.75149 Miscellaneous

.7519 Miscellaneous

.752 Written or printed

.7521 Bulletins, circulars, posters

- .7522 Circular letters
- .7523 Correspondence
- .7524 Press

- .7525 Slogans

- .7529 Miscellaneous

- .753 Objective

- .7531 Demonstrations

- .75311 Method

- .75312 Result

- .75319 Miscellaneous

- .7532 Exhibits, displays

- .7533 Motion pictures

- .7534 Lantern slides

- .7535 Pageants, plays

- .7539 Miscellaneous

- .79 Miscellaneous

- .8 Measuring results

- .80 General

- .81 Records

- .810 General

- .811 Field notes

- .812 Follow-up

- .813 Filing

- .8131 Correspondence

- .8132 Bulletins

- .8133 Prints, negatives

- .8139 Miscellaneous

- .814 Office equipment

- .819 Miscellaneous

.82 Reports

.820 General

.821 Extension director

.822 Supervisor

.823 Specialist

.824 County extension agent

.829 Miscellaneous

.83 Accomplishments

.830 General

.831 County agent work

.832 Home demonstration work

.833 Boys' and girls' club work

.834 Specialists' work

.835 Negro work

.839 Miscellaneous

.89 Miscellaneous

.9 Miscellaneous

.91 Services available

.910 General

.911 Federal

.9111 Office of Cooperative Extension Work

.9112 Office of Exhibits

.9113 Office of Motion Pictures

.9119 Miscellaneous

.912 State

.919 Miscellaneous

.99 Bibliography

.991 Books

.992 Bulletins, circulars

.993 Periodicals

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

2. AGRICULTURAL ECONOMICS

To be used as a basis of classification of material on
agricultural economics for the Extension Service
Handbook and will be printed and issued as an
appendix.

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING, EQUIPMENT, and FURNISHING
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - Master classification key.

THE HISTORY OF THE UNITED STATES OF AMERICA

CHAPTER I

THE DISCOVERY OF AMERICA

THE FIRST VOYAGE OF COLUMBUS

THE SECOND VOYAGE OF COLUMBUS

THE THIRD VOYAGE OF COLUMBUS

THE FOURTH VOYAGE OF COLUMBUS

THE FIFTH VOYAGE OF COLUMBUS

THE SIXTH VOYAGE OF COLUMBUS

THE SEVENTH VOYAGE OF COLUMBUS

THE EIGHTH VOYAGE OF COLUMBUS

THE NINTH VOYAGE OF COLUMBUS

THE TENTH VOYAGE OF COLUMBUS

THE ELEVENTH VOYAGE OF COLUMBUS

THE TWELFTH VOYAGE OF COLUMBUS

THE THIRTEENTH VOYAGE OF COLUMBUS

THE FOURTEENTH VOYAGE OF COLUMBUS

THE FIFTEENTH VOYAGE OF COLUMBUS

THE SIXTEENTH VOYAGE OF COLUMBUS

THE SEVENTEENTH VOYAGE OF COLUMBUS

THE EIGHTEENTH VOYAGE OF COLUMBUS

THE NINETEENTH VOYAGE OF COLUMBUS

2. AGRICULTURAL ECONOMICS

.0 General - Economic services

.01 Outlook report

.02 Crop estimates

.021 Intentions to plant

.022 Crop acreage

.023 Crop condition

.024 Crop production

.029 Miscellaneous

.03 Livestock estimates

.031 Monthly livestock change

.032 Seasonal livestock supply

.039 Miscellaneous

.04 Grades and standards

.041 Crops

.042 Livestock

.049 Miscellaneous

.05 Inspection service

.051 Grain

.052 Hay

.053 Fruits and vegetables

.054 Butter and cheese

.055 Eggs

.056 Cotton classing

.057 Wool classing

.059 Miscellaneous

- .06 Crop and market news service
 - .061 Daily market reports
 - .062 Weekly market review
 - .063 Monthly market review
 - .064 Annual market review
 - .065 Foreign crops and markets
 - .069 Miscellaneous
- .09 Miscellaneous
- .1 Statistics
 - .10 General
 - .11 Crop production
 - .110 General
 - .111 Domestic
 - .112 Foreign
 - .119 Miscellaneous
 - .12 Livestock production
 - .120 General
 - .121 Domestic
 - .122 Foreign
 - .129 Miscellaneous
 - .13 Crop movement
 - .130 General
 - .131 Shipments
 - .132 Stocks in storage
 - .139 Miscellaneous
 - .14 Livestock movement
 - .140 General

- .141 Shipments
- .142 Slaughter
- .143 Cold-storage holdings of meat
- .149 Miscellaneous
- .15 Prices
- .16 Exports and imports
- .17 Duties
- .18 Transportation rates
- .19 Miscellaneous
- .2 Commodities
 - .20 General
 - .21 Field crops
 - .210 General
 - .211 Alkaloidal crops
 - .212 Cereals
 - .213 Fiber and textile crops
 - .214 Forage crops
 - .215 Oil crops
 - .216 Sugar and sirup crops
 - .217 Drug and medicinal crops
 - .219 Miscellaneous
 - .22 Fruits
 - .220 General
 - .221 Pome fruits
 - .222 Stone fruits
 - .223 Small fruits
 - .224 Grapes

- .225 Subtropical fruits
- .229 Miscellaneous
- .23 Nuts
- .24 Vegetables
 - .240 General
 - .241 Root and tuber crops
 - .242 Bulbous crops
 - .243 Greens and salad crops
 - .244 Cabbage crops
 - .245 Beans and peas
 - .246 Vine crops
 - .247 Other annual crops
 - .248 Perennial crops
 - .249 Miscellaneous
- .25 Ornamentals
- .26 Livestock
 - .260 General
 - .261 Horses
 - .262 Asses and mules
 - .263 Cattle
 - .264 Hogs
 - .265 Sheep
 - .266 Goats
 - .267 Poultry
 - .269 Miscellaneous
- .27 Livestock products
 - .270 General

- .271 Meats
- .272 Dairy products
- .273 Poultry products
- .274 Wool, goat hair
- .275 Hides, skins
- .276 Packing-house by-products
- .279 Miscellaneous
- .28 Feed (manufactured and by-product)
- .29 Miscellaneous
- .3 Production
 - .30 General
 - .31 Land
 - .310 General
 - .311 Resources and utilization
 - .312 Tenure
 - .313 Reclamation
 - .314 Settlement and sale
 - .315 Value
 - .319 Miscellaneous
 - .32 Labor
 - .320 General
 - .321 Supply and demand
 - .322 Movement
 - .323 Wages and other conditions of employment
 - .329 Miscellaneous
 - .33 Equipment
 - .34 Farm management

- .340 General
- .341 Production and requirements
 - .3411 Crop-production requirements
 - .34111 Land, labor, and material
 - .34112 Cost rates
 - .34119 Miscellaneous
 - .3412 Livestock-production requirements
 - .34121 Land, labor, and material
 - .34122 Cost rates
 - .34129 Miscellaneous
 - .3413 Production standards
 - .3419 Miscellaneous
- .342 Farm organization
 - .3421 Distribution of types of farming
 - .3422 Farm-business analysis
 - .3423 Organization standards
 - .3429 Miscellaneous
- .343 Adjustments in production
- .349 Miscellaneous
- .35 Farm costs
- .36 Income
- .39 Miscellaneous
- .4 Distribution
 - .40 General
 - .41 Packing and assembling
 - .410 General
 - .411 Packaging

- .412 Packages and containers
- .413 Assembling at farm
- .414 Assembling at shipping point
- .419 Miscellaneous
- .42 Storage
 - .420 General
 - .421 Farm storage
 - .422 Storage at local market
 - .423 Storage at terminal market
 - .424 Cold storage
 - .429 Miscellaneous
- .43 Transportation
 - .430 General
 - .431 Farm to local market or shipping point
 - .432 Local to terminal market
 - .433 Shipping regulations
 - .4331 Car capacity
 - .4332 Demurrage
 - .4333 Claims
 - .4339 Miscellaneous
- .44 Risk
 - .440 General
 - .441 Insurance
 - .442 Hedging
 - .443 Loss in transit
 - .449 Miscellaneous

- .45 Processing and manufacturing
 - .450 General
 - .451 Crop products
 - .452 Livestock products
 - .453 Dairy products
 - .459 Miscellaneous
- .46 Selling
 - .460 General
 - .461 Local - producer to consumer
 - .462 To local buyer
 - .463 Consignment
 - .469 Miscellaneous
- .47 Dispersing
 - .470 General
 - .471 Wholesaling
 - .472 Jobbing
 - .473 Retailing
 - .479 Miscellaneous
- .48 Cost of marketing
- .49 Miscellaneous
- .5 Agricultural finance
 - .50 General
 - .51 Farm-mortgage credit
 - .510 General
 - .511 Federal land banks
 - .512 Joint-stock land banks
 - .513 State credit associations

- .514 Commercial agencies
 - .5141 Insurance companies
 - .5142 Farm-mortgage.bankers
 - .5143 Local banks
 - .5149 Miscellaneous
- .519 Miscellaneous
- .52 Intermediate and short-term credit
 - .520 General
 - .521 Federal intermediate-credit banks
 - .522 Commercial banks
 - .523 Livestock loan associations
 - .524 Credit unions
 - .529 Miscellaneous
- .53 Insurance
 - .530 General
 - .531 Fire insurance
 - .5311 Farmers' mutual
 - .5312 Commercial
 - .5319 Miscellaneous
 - .532 Crop insurance
 - .533 Livestock insurance
 - .539 Miscellaneous
- .54 Taxation
- .55 Farm financial conditions
- .59 Miscellaneous
- .6 Agricultural organizations
 - .60 General

1. The first part of the paper is devoted to a

discussion of the general principles of the

theory of the structure of the

crystal lattice.

2. The second part of the paper is devoted to a

discussion of the

experimental results obtained by the

author.

3. The third part of the paper is devoted to a

discussion of the

conclusions of the author.

4. The fourth part of the paper is devoted to a

discussion of the

conclusions of the

author.

5. The fifth part of the paper is devoted to a

discussion of the

conclusions of the

author.

6. The sixth part of the paper is devoted to a

discussion of the

conclusions of the

author.

7. The seventh part of the paper is devoted to a

discussion of the

conclusions of the

author.

.61 Educational

- .610 General
- .611 Crop associations
- .612 Livestock associations
- .613 Farm bureau
- .614 Farmers' institutes
- .615 Agricultural fairs and shows
- .619 Miscellaneous

.62 Fraternal-social

- .620 General
- .621 Farmers' union
- .622 Gleaners
- .623 Grange
- .629 Miscellaneous

.63 Cooperative associations

- .630 General
- .631 Crop-improvement associations
 - .6311 Pedigreed-seed associations
 - .6312 Spraying associations
 - .6319 Miscellaneous
- .632 Livestock-improvement associations
 - .6321 Bull associations
 - .6322 Cow-testing associations
 - .6323 Stallion associations
 - .6329 Miscellaneous
- .633 Cooperative buying associations

2nd. The first of these is the

the second of these is the

the third of these is the

the fourth of these is the

the fifth of these is the

the sixth of these is the

the seventh of these is the

the eighth of these is the

the ninth of these is the

the tenth of these is the

the eleventh of these is the

the twelfth of these is the

the thirteenth of these is the

the fourteenth of these is the

the fifteenth of these is the

the sixteenth of these is the

the seventeenth of these is the

the eighteenth of these is the

the nineteenth of these is the

the twentieth of these is the

the twenty-first of these is the

- .6331 Consumer stores
- .6332 Feed
- .6333 Fertilizer
- .6334 Seed
- .6339 Miscellaneous
- .634 Cooperative selling associations
 - .6341 Cotton
 - .6342 Dairy products
 - .6343 Fruits and vegetables
 - .6344 Grain
 - .6345 Livestock
 - .6346 Poultry and eggs
 - .6347 Tobacco
 - .6348 Wool
 - .6349 Miscellaneous
- .639 Miscellaneous
 - .6391 Cooperative drainage associations
 - .6392 Cooperative threshing associations
- .69 Miscellaneous
- .7 Agricultural population
 - .70 General
 - .71 Farm population
 - .72 Migration
 - .73 Standards of living
 - .74 Community improvement
 - .79 Miscellaneous

10

.8 Regulatory work

.80 General

.81 Regulatory acts

.811 Cotton Standards Act

.812 Food-Products Inspection Act

.813 Grain Standards Act

.814 United States Warehouse Act

.819 Miscellaneous

.89 Miscellaneous

.9 Miscellaneous

.99 Classification of literature on agricultural economics

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.

CLASSIFICATION KEY

3. AGRICULTURAL ENGINEERING.

(To be used as a basis of classification of material on
agricultural engineering for the Extension Service Handbook
and will be printed and issued as an appendix.)

EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING AND EQUIPMENT
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - master classification key.

3. AGRICULTURAL ENGINEERING*

.0 General

.1 Materials, Manufacture, tests, strength, preservation.

.10 General

.11 Wood

.12 Natural stone

.13 Ceramic products

.14 Concrete, cement, sand, gravel

.15 Lime and plasters

.16 Metals

.17 Building and roofing papers, shingles, etc.

.18 Glass, paints, waterproofing compounds, etc.

.19 Miscellaneous

.2 Drainage

.20 General

.21 Preliminary investigations

.22 Drainage design

.221 Tile drains

.222 Surface drains

.223 Flood control

.224 Pumping plants (see also .4124)

.225 Vertical drains

.226 Irrigated lands

.227 Structures

.23 Drainage construction (see also .45)

.231 Tile drainage construction

* This classification key has been officially adopted by the American Society of Agricultural Engineers.

- .232 Open ditch and levee construction
 - .2321 Dry-land excavation
 - .2322 Dredging
- .233 Drainage structures
- .24 Drainage administration
 - .241 Individual
 - .242 Mutual or corporation
 - .243 District
 - .244 Government
- .25 Drainage laws, contracts, specifications
- .26 Soil erosion
- .29 Miscellaneous
- .3 Irrigation
 - .30 General
 - .31 Irrigation engineering
 - .311 Hydraulics of irrigation
 - .312 Conveyance of water (canals, canal linings, seepage losses, tunnels, flumes, pipes and inverted syphons)
 - .313 Irrigation structures (dams, diversion works, spillways, check gates, measuring devices)
 - .314 Irrigation by pumping. (see also.4124)
 - .32 Irrigation practice
 - .321 Measurement of water
 - .322 Preparation of land
 - .323 Duty of water
 - .324 Irrigation of special crops

- .33 Storage
- .34 Irrigation laws
- .39 Miscellaneous
- .4 Farm machinery, farm motors, farm tools, excavating and grading machinery
 - .40 General
 - .41 Farm machinery
 - .411 Farm field machinery (drawbar)
 - .4111 Tillage machinery
 - .41111 Plows
 - .41112 Harrows and rollers
 - .41113 Cultivators
 - .4112 Seeding machinery
 - .41121 Grain seeders and drills
 - .41122 Corn planter and listers
 - .41123 Potato planters
 - .41124 Garden seeders
 - .4113 Harvesting and haying machinery
 - .41131 Grain binders, headers, reapers
 - .41132 Corn harvesters
 - .41133 Mowers
 - .41134 Hay rakes, loaders, stackers, etc.
 - .41135 Potato machinery
 - .4114 Fertilizer machinery
 - .4115 Vehicles
 - .4119 Miscellaneous

.412 Farm power machinery (belt, hand, etc.)

.4121 Threshers, hullers and shellers

.41211 Threshers and hullers

.41212 Corn shellers

.4122 Grain graders, cleaners, and seed
preparing machinery

.4123 Feed and food-preparing machinery

.41231 Feed and ensilage cutters

.41232 Feed mills and flour mills

.41233 Shredders and huskers

.41234 Hay presses

.41235 Sorghum mills

.4124 Pumping, spraying and well machinery

.41241 Pumps

.41242 Well construction

.41243 Well digging and repairing
machinery and tools

.41244 Spraying machinery

.4125 Elevators

.4126 Concrete machinery

.4127 Wood-working machinery

.4128 Land-clearing machinery

.4129 Miscellaneous

.41291 Milking machines

.42 Farm motors

.421 Horses. Horse power. Hitches.

.422 Windmills

.423 Air engines. Air compressors.

.424 Steam engines and boilers

.4241 Engines

.4242 Boilers

.4243 Fuels

.425 Gas engines and automotive applications

.4251 Engines

.4252 Tractors

.4253 Trucks

.4254 Automobiles

.4255 Fuels and carburetion

.4256 Ignition, starting and lighting

.4257 Other accessories

.4258 Tractor hitches and guides

.426 Electric motors

.427 Water motors

.43 Power transmission

.431 Bearings, hangers and shafting

.432 Belts, rope and pulleys

.433 Gearing

.434 Chains and sprockets

.435 Friction and transmission

.436 Lubricants and lubrication

.44 Farm tools and minor equipment

.441 Agricultural tools (spades, forks, etc.)

.442 Farm hardware, tackle blocks, jacks.

.443 Forge and machinists' tools

.444 Carpentry tools

- .445 Ice tools
- .446 Scales
- .45 Excavating and grading machinery
 - .451 Trenching machinery
 - .452 Dry-land excavating machinery
 - .4521 Scrapers, blade graders, levellers
 - .4522 Elevating graders
 - .4523 Power excavators
 - .453 Dredges
- .49 Miscellaneous
- .5 Roads and bridges
 - .50 General
 - .51 Earth roads
 - .52 Gravel roads
 - .53 Crushed stone roads
 - .54 Paved roads
 - .55 Road laws
 - .56 Bridges and culverts
 - .59 Miscellaneous
- .6 Educational and experimental
 - .60 General
 - .61 Courses of study
 - .611 Materials. Concrete construction
 - .612 Drainage
 - .613 Irrigation
 - .614 Farm machinery and farm motors
 - .615 Roads
 - .617 Farm buildings

- .618 Farm sanitation
- .619 Surveying, drawing, etc.
- .62 Engineering societies
- .63 Experimental work
- .64 Public demonstrations and tests
- .65 Scientific apparatus
 - .651 Dynamometers
 - .652 Measuring and recording instruments for temperature, pressure, time, and speed
 - .653 Laboratory apparatus
 - .654 Electrical measuring instruments
 - .655 Cameras and supplies. Photography.
- .66 Office equipment
 - .661 Furniture and filing devices
 - .662 Office supplies
 - .663 Typewriters, duplicating machines, computing machines, etc.
- .69 Miscellaneous
- .7 Farm buildings and fences
 - .70 General
 - .701 Building codes
 - .702 Specifications
 - .703 Estimating and cost data
 - .704 Contracts
 - .705 Framing
 - .706 Fireproofing
 - .71 Dwelling houses

.72 Buildings for housing farm animals

.721 General-purpose barns

.722 Horse barns

.723 Dairy-cattle barns

.724 Beef-cattle barns

.725 Sheep barns

.726 Hog houses

.727 Poultry houses

.73 Buildings for housing farm products

.731 Hay barns and sheds

.7311 Measuring hay in barns and stacks

.732 Corn cribs, granaries, and seed rooms

.733 Silos

.734 Dairy houses and creameries

.735 Root and fruit-storage buildings

.736 Smoke houses

.74 Buildings for housing machinery, equipment and supplies

.741 Machine sheds and garages

.742 Shops

.743 Fuel houses

.745 Ice houses

.746 Manure pits

.75 Fences

.76 Farmsteads

.77 Livestock equipment and farm conveniences

.771 Watering tanks, troughs, and tank heaters

.772 Self feeders (grain and condiments)

.773 Feed racks

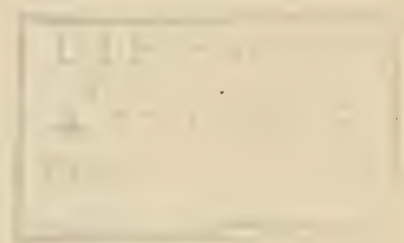
- .774 Feeding floors
- .775 Dipping vats and hog oilers
- .776 Crates and chutes
- .777 Poultry incubators and brooders
- .778 Vegetable dryers. Canning equipment.
- .78 Farm buildings equipment
 - .781 Lighting
 - .7811 Electric-light plants
 - .7812 Acetylene-light plants
 - .7813 Blaugas-light plants
 - .7814 Gasoline, kerosene, and alcohol lighting
 - .782 Heating
 - .783 Ventilation
 - .784 Plumbing
 - .785 Refrigeration and creamery and dairy machinery and appliances
 - .786 Household machinery
 - .787 Barn equipment
 - .788 Builders' hardware. Lightning rods.
- .79 Miscellaneous
 - .791 School houses, churches and community centers
 - .792 Green houses, cold frames and hot beds
- .8 Sanitation and water supply
 - .80 General
 - .81 Sewage disposal
 - .811 Sewers
 - .812 Septic tanks and filters

- .813 Cess pools
- .814 Privies
- .82 Garbage disposal
- .83 Fly, vermin, and rodent eradication
- .84 Laws and regulations on sanitation
- .85 Disinfection, sterilization, and general conditions
of sanitation
- .87 Water supply
 - .871 Sources of supply
 - .872 Filters. Purification. Softening.
 - .873 Storage tanks, cisterns, and pressure systems.
- .9 Miscellaneous
 - .91 Blasting
 - .92 Rope knots and splices. Harness. Saddlery.
 - .93 Farm labor efficiency.
 - .94 Land surveying and agricultural drawing
 - .941 Surveying instruments
 - .942 Drawing instruments and supplies
 - .99 Bibliography of agricultural engineering literature.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.

CLASSIFICATION KEY

4. AGRICULTURAL TECHNOLOGY

To be used as a basis of classification of material on
agricultural technology for the Extension Service Hand-
book and will be printed and issued as an appendix.

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING, EQUIPMENT, and FURNISHING
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - Master classification key.

4. AGRICULTURAL TECHNOLOGY

- .0 General
- .1 Milling
 - .10 General
 - .11 Classification
 - .12 Sampling
 - .13 Preparation
 - .14 Equipment
 - .15 Operation
 - .19 Miscellaneous
- .2 Starch and sugars
 - .20 General
 - .21 Starch
 - .210 General
 - .211 Cassava
 - .212 Corn
 - .213 Potato
 - .219 Miscellaneous
 - .22 Sugar
 - .220 General
 - .221 Beet
 - .222 Cane
 - .223 Corn
 - .224 Dextrose and levulose
 - .225 Honey
 - .226 Maple
 - .227 Milk
 - .229 Miscellaneous

- .23 Sirup
 - .230 General
 - .231 Apple
 - .232 Corn
 - .233 Maple
 - .234 Muscadine grape
 - .235 Sorgo
 - .236 Sugar beet
 - .237 Sugar cane
 - .238 Sweet potato
 - .239 Miscellaneous
- .29 Miscellaneous
- .3 Fruit juices and vinegars
 - .30 General
 - .31 Fruit juices
 - .310 General
 - .311 Apple
 - .312 Berries
 - .3121 Blackberry
 - .3122 Huckleberry
 - .3123 Strawberry
 - .3124 Raspberry (black)
 - .3125 Raspberry (red)
 - .3129 Miscellaneous
 - .313 Cherry
 - .314 Grape
 - .315 Lemon

- .316 Orange
- .317 Peach
- .318 Pineapple
- .319 Miscellaneous
- .32 Vinegars
 - .320 General
 - .321 Apple
 - .322 Berry
 - .323 Grape
 - .324 Honey
 - .325 Orange
 - .326 Peach
 - .327 Persimmon.
 - .328 Pear
 - .329 Miscellaneous
 - .3291 Grains
 - .3292 Maple products
 - .3293 Molasses
 - .3294 Watermelon
- .39 Miscellaneous
- .4 Fats and oils
 - .40 General
 - .41 Vegetable oils
 - .410 General
 - .411 Castor
 - .412 Coconut
 - .4121 Edible
 - .4122 Inedible

- .413 Corn
 - .4131 Edible
 - .4132 Inedible
- .414 Cottonseed
 - .4141 Crude
 - .4142 Refined
- .415 Linseed
- .416 Olive
- .417 Peanut
 - .4171 Edible
 - .4172 Inedible
- .418 Soybean
 - .4181 Edible
 - .4182 Inedible
- .419 Miscellaneous
 - .4191 Mustard seed
 - .4192 Palm kernel
 - .41921 Edible
 - .41922 Inedible
 - .4193 Palm
 - .4194 Peppermint
 - .4195 Raisin seed
 - .4196 Rape-seed
 - .4197 Vegetable stearin
- .42 Animal fats and oils
 - .420 General
 - .421 Cod and cod-liver oil

- .422 Garbage grease
- .423 Herring oil
- .424 Horse oil
- .425 Lard
 - .4251 Edible
 - .4252 Inedible
 - .4253 Neutral
- .426 Oleo stock
- .427 Tallow
 - .4271 Edible
 - .4272 Inedible
- .428 Wool grease
- .429 Miscellaneous
- .43 Fat and oil derivatives
 - .430 General
 - .431 Acidulated soap stock
 - .432 Cottonseed foots
 - .4321 Crude
 - .4322 Distilled
 - .433 Fatty acids
 - .4331 Crude
 - .4332 Distilled
 - .434 Greases
 - .4341 Brown
 - .4342 Curriers
 - .4343 Sewer
 - .4344 Tankage

- .4345 White
- .4346 Yellow
- .4349 Miscellaneous
- .435 Lard
 - .4351 Oil
 - .4352 Stearin
- .436 Oleo oil
 - .4361 Edible
 - .4362 Inedible
- .437 Tallow and oleo stearin
 - .4371 Edible
 - .4372 Inedible
- .438 Tallow oil
- .439 Miscellaneous
 - .4391 Red oil
 - .4392 Stearic acid
- .49 Miscellaneous
- .5 Dyes and tanning
 - .50 General
 - .51 Dyeing
 - .510 General
 - .511 Theory
 - .512 Vegetable fibers
 - .5121 Cotton
 - .5122 Linen
 - .5123 Hemp
 - .5124 Jute

- .5125 China-grass
- .5129 Miscellaneous
- .513 Animal fibers
 - .5131 Wool
 - .5132 Silk
 - .5133 Wild silk
 - .5139 Miscellaneous
- .514 Artificial fibers
 - .5141 Artificial silk
 - .5149 Miscellaneous
- .515 Special colors (effects, shades, not dyes)
- .516 Dyeing special articles
- .517 Garment dyeing and cleaning
- .518 Home dyeing
 - .5181 Equipment
 - .51811 Dye pots
 - .51812 Heating devices
 - .51813 Stirring rods or dye sticks
 - .51814 Wringers
 - .51815 Drying arrangements
 - .51819 Miscellaneous
 - .5182 Celluloid
 - .5183 Easter eggs
 - .5184 Feathers
 - .5185 Gloves
 - .5186 Hats
 - .5187 Textiles

- .5189 Miscellaneous
- .519 Miscellaneous
- .52 Washing and bleaching
 - .520 General
 - .521 Cotton
 - .522 Linen
 - .523 Hemp
 - .524 Jute
 - .525 Wool
 - .526 Silk
 - .527 Tussur silk
 - .529 Miscellaneous
- .53 Dyes and dyestuffs
 - .530 General
 - .531 Artificial dyestuffs (coal-tar colors)
 - .5311 Direct cotton or salt colors
 - .5312 Sulphur colors
 - .5313 Basic colors
 - .5314 Eosins and rhodamines
 - .5315 Acid colors
 - .5316 Mordant colors (alizarines and others)
 - .5317 Acid chrome colors
 - .5318 Compounds of aromatic series (phenol dyes)
 - .5319 Miscellaneous colors
 - .53191 Aniline black
 - .53192 Indigo or vat colors
 - .53193 Insoluble azo colors

.532 Natural dyestuffs

- .5321 Indigo
- .5322 Logwood
- .5323 Fustic
- .5324 Cutch or catechu and gambier
- .5325 Safflower, annatto
- .5326 Red woods
- .5327 Madder
- .5328 Cochineal, kermes, and lac-dye
- .5329 Miscellaneous
 - .53291 Quercitron bark and flavin
 - .53292 Weld
 - .53293 Tumeric
 - .53294 Persian berries
 - .53295 Young fustic
 - .53296 Orchil and cudbear

.533 Mineral dyes

- .5331 Chrome yellow
- .5332 Chrome orange
- .5333 Chrome green
- .5334 Manganese brown
- .5335 Iron buff and nankin yellow
- .5336 Khaki
- .5337 Prussian blue
- .5339 Miscellaneous

.539 Miscellaneous

.54 Mordants

.540 General

.541 Acids and acid mordants

.5411 Inorganic

.5412 Organic

.5413 Oil mordants (fatty acids, turkey red oil)

.5414 Tannins and allied compounds

.5419 Miscellaneous

.542 Bases and salts, and basic mordants

.5421 Potassium compounds

.5422 Sodium compounds and soap

.5423 Ammonium compounds

.5424 Calcium compounds

.5425 Barium compounds

.5426 Magnesium compounds

.5427 Aluminum compounds

.5428 Chromium compounds

.5429 Miscellaneous

.54291 Iron compounds

.54292 Tin compounds

.54293 Titanium compounds

.54294 Copper compounds

.54295 Lead compounds

.54296 Manganese and antimony compounds

.54297 Zinc and nickel compounds

.54298 Cobalt, vanadium, cerium, tungsten, uranium

.54299 Various chemicals

- .549 Miscellaneous
- .55 Tanning
 - .550 General
 - .551 Classification
 - .5511 Hides proper
 - .5512 Kips
 - .5513 Skins
 - .5519 Miscellaneous
 - .552 Skinning, curing, storing
 - .553 Equipment and tools
 - .554 Methods
 - .5541 Oil tanning
 - .5542 Mineral tanning
 - .55421 Alum
 - .55422 Chrome
 - .5543 Vegetable or bark tanning
 - .55431 Oak bark
 - .55432 Hemlock bark
 - .55433 Gall nuts
 - .55434 Sumac
 - .55435 Catechu or cutch
 - .55436 Gambier
 - .5544 Combination tanning
 - .5549 Miscellaneous
 - .555 Tanning process
 - .5551 Preliminary operations
 - .55511 Slaking lime

- .55512 Soaking and cleaning
- .55513 Liming
- .55514 Unhairing
- .55515 Fleshing
- .55519 Miscellaneous
- .5552 Bark-tanned sole and harness leather
 - .55521 Deliming
 - .55522 Tanning
 - .55523 Oiling and finishing
 - .55529 Miscellaneous
- .5553 Chrome-tanned leather
 - .55531 Deliming
 - .55532 Tanning
 - .55533 Washing and neutralizing
 - .55534 Oiling and finishing
 - .55539 Miscellaneous
- .5554 Alum-tanned lace leather
 - .55541 Deliming
 - .55542 Tanning
 - .55543 Oiling and finishing
 - .55549 Miscellaneous
- .5555 Tanning fur skins
 - .55551 Soaking and fleshing
 - .55552 Combination tannage
 - .55553 Salt-alum tannage
 - .55554 Salt-acid tannage
 - .55559 Miscellaneous

- .556 Leather dyeing and staining
- .557 Care of leather
 - .5571 Boots and shoes
 - .5572 Harness
 - .5573 Driving belt
 - .5574 Bookbinding leather
 - .5575 Traveling bag and suit case
 - .5576 Purse, pocketbook, wallet
 - .5577 Furniture upholstered in leather
 - .5578 Mildewing of leather
 - .5579 Miscellaneous
- .559 Miscellaneous
- .59 Miscellaneous
- .9 Miscellaneous
 - .99 Classification of literature on dyes and tanning.

1.9
89220
CLARIBEL E. BARNETT

DEPT LIBRARY

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

5. ANIMAL DISEASES

(To be used as a basis of classification of material on
animal diseases for the Extension Service Handbook
and will be printed and issued as an appendix.)

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL.
2. AGRICULTURAL ECONOMICS.
3. AGRICULTURAL ENGINEERING.
4. AGRICULTURAL TECHNOLOGY.
5. ANIMAL DISEASES.
6. ANIMAL HUSBANDRY.
7. DAIRYING.
8. ENTOMOLOGY
9. FERTILIZERS.
10. FIELD CROPS.
11. FORESTRY.
12. HORTICULTURE.
13. PLANT DISEASES.
14. SOILS.
15. WEATHER.
16. WILD LIFE.
26. ECONOMICS AND MANAGEMENT IN HOME.
27. FOODS AND NUTRITION.
28. HOUSING, EQUIPMENT, and FURNISHING.
29. TEXTILES AND CLOTHING.

APPENDIX - Master classification key.

5. ANIMAL DISEASES, PARASITES AND OTHER ~~ABNORMAL~~ CONDITIONS.

.0 General.

.1 Transmissible diseases.

.10 General.

.11 Most frequently observed.

.110 General.

.111 Horses, mules, and asses.

.1110 General.

.1111 Anthrax.

.1112 Distemper.

.1113 Infectious abortion.

.1114 Influenza.

.1119 Miscellaneous.

.112 Cattle.

.1120 General.

.1121 Anthrax.

.1122 Blackleg.

.1123 Cowpox.

.1124 Hemorrhagic septicemia.

.1125 Infectious abortion.

.1126 Pink eye.

.1127 Tuberculosis.

.1129 Miscellaneous.

.113 Sheep and goats.

.1130 General.

- .1131 Anthrax.
- .1132 Caseous lymphadenitis.
- .1133 Hemorrhagic septicemia.
- .1134 Snuffles.
- .1139 Miscellaneous.
- .114 Hogs.
 - .1140 General.
 - .1141 Flu.
 - .1142 Hemorrhagic septicemia.
 - .1143 Hog cholera.
 - .1144 Necrobacillosis.
 - .1145 Swine plague.
 - .1146 Tuberculosis.
 - .1149 Miscellaneous.
- .115 Poultry.
 - .1150 General.
 - .1151 Chicken pox.
 - .1152 Fowl cholera.
 - .1153 Roup.
 - .1154 White diarrhea of chicks.
 - .1159 Miscellaneous.
- .119 Miscellaneous.
- .12 Less frequently observed.
 - .120 General.
 - .121 Horses, mules, and asses.
 - .1210 General.
 - .1211 Dourine.

- .1212 Fistula and poll-evil.
- .1213 Glanders and farcy.
- .1214 Moon blindness.
- .1215 Navel and joint ill of foals.
- .1216 Purpura hemorrhagica.
- .1217 Rabies.
- .1218 Swamp fever.
- .1219 Miscellaneous.
- .122 Cattle.
 - .1220 General.
 - .1221 Foot and mouth disease.
 - .1222 Johne's disease.
 - .1223 Lump jaw.
 - .1224 Rabies.
 - .1225 Contagious sore mouth.
 - .1226 Tick fever.
 - .1227 White scours of calves.
 - .1229 Miscellaneous.
- .123 Sheep and goats.
 - .1230 General.
 - .1231 Blackleg.
 - .1232 Foot and mouth disease.
 - .1233 Infectious abortion
 - .1234 Lip and leg ulceration.
 - .1235 Lump jaw.
 - .1236 Rabies.
 - .1237 White scours of lambs.
 - .1239 Miscellaneous.

.124 Hogs.

.1240 General.

.1241 Anthrax.

.1242 Erysipelas.

.1243 Foot and mouth disease.

.1244 Infectious abortion.

.1249 Miscellaneous.

.125 Poultry.

.1250 General.

.1251 Aspergillosis.

.1252 Blackhead.

.1253 Coccidiosis.

.1254 European fowl pest.

.1255 Favus.

.1256 Fowl typhoid.

.1257 Tuberculosis.

.1258 Vent gleet.

.1259 Miscellaneous.

.126 Miscellaneous.

.2 Non-transmissible diseases.

.20 General.

.21 Horses, mules, and asses.

.210 General.

.211 Azoturia.

.212 Big leg.

.213 Forage poisoning.

- .214 Founder.
- .215 Heaves.
- .216 Pleurisy.
- .217 Pneumonia.
- .218 Tetanus.
- .219 Miscellaneous.
- .22 Cattle.
 - .220 General.
 - .221 Ergotism.
 - .222 Garget.
 - .223 Milk fever.
 - .224 Pica.
 - .225 Pleurisy.
 - .226 Pneumonia.
 - .229 Miscellaneous.
- .23 Sheep and goats.
 - .230 General.
 - .231 Garget.
 - .232 Gas gangrene.
 - .233 Goiter.
 - .234 Milk fever.
 - .235 Pneumonia, pleurisy.
 - .236 Tetanus.
 - .239 Miscellaneous.
- .24 Hogs.
 - .240 General.
 - .241 Cannibalism.

- .242 Eczema.
- .243 Ergotism.
- .244 Garget.
- .245 Pneumonia, pleurisy.
- .246 Posterior paralysis.
- .247 Rheumatism.
- .248 Rickets.
- .249 Miscellaneous.
 - .2491 Tetanus.
- .25 Poultry.
 - .250 General.
 - .251 Gout.
 - .252 Limberneck.
 - .253 Simple catarrh.
 - .259 Miscellaneous.
- .29 Miscellaneous.
- .3 Parasites and parasitic diseases.
 - .30 General.
 - .31 Horses, mules, and asses.
 - .310 General.
 - .311 Bots.
 - .312 Flies.
 - .313 Lice.
 - .314 Mange.
 - .315 Pinworm.
 - .316 Roundworm.
 - .319 Miscellaneous.

.32 Cattle.

- .320 General.
- .321 Flies.
- .322 Lice.
- .323 Lungworm.
- .324 Mango, scab, itch.
- .325 Ringworm.
- .326 Roundworm.
- .327 Stomach worm.
- .328 Warbles.
- .329 Miscellaneous.
 - .4291 Screw worm.
 - .4292 Ticks.

.33 Sheep and goats.

- .330 General.
- .331 Grub in head.
- .332 Liver fluke.
- .333 Lungworm.
- .334 Maggots.
- .335 Scabies.
- .336 Screw worm.
- .337 Stomach worm.
- .338 Ticks.
- .339 Miscellaneous.
 - .3391 Bladder worm.

- .3392 Hookworm.
- .3393 Lice.
- .3394 Nodular worm.
- .3395 Roundworm.
- .3396 Tapeworm.

.34 Hogs.

- .340 General.
- .341 Kidney worm.
- .342 Lice.
- .343 Lungworm.
- .344 Mange.
- .345 Measles
- .346 Roundworm.
- .347 Thorn-headed worm.
- .348 Tapeworm.
- .349 Miscellaneous.

.35 Poultry.

- .350 General.
- .351 Gapes.
- .352 Lice.
- .353 Mites.
- .354 Roundworm.
- .355 Scabies.
- .356 Scaly leg.
- .357 Tapeworm.
- .359 Miscellaneous.

.39 Miscellaneous.

.4 Other abnormal conditions.

.40 General.

.41 Horses, mules, and asses.

.410 General.

.411 Colic.

.412 Curb, thoroughpin.

.413 Difficult parturition.

.414 Galls, corns, boils.

.415 Heat stroke.

.416 Knuckling, interfering, stringhalt.

.417 Ringbone and sidebone.

.418 Scratches and grease heel.

.419 Miscellaneous.

.4191 Choke.

.4192 Dislocations.

.4193 Enamel points and lampas.

.4194 Fracture.

.4195 Nail prick.

.4196 Quittor.

.4197 Roaring.

.4198 Sand crack.

.42 Cattle.

.420 General.

.421 Bloat.

- .422 Casting the withers.
- .423 Constipation.
- .424 Diarrhea.
- .425 Foul of the foot.
- .426 Fractures.
- .427 Poisoning.
- .428 Retained afterbirth.
- .429 Miscellaneous.
 - .4291 Teat obstruction.
 - .4292 Warts.
- .43 Sheep and goats.
 - .430 General.
 - .431 Bloat.
 - .432 Choke.
 - .433 Difficult parturition.
 - .434 Foot rot.
 - .435 Gravel.
 - .436 Rickets.
 - .439 Miscellaneous.
- .44 Hogs.
 - .440 General.
 - .441 Abscess.
 - .442 Choke.
 - .443 Fracture.
 - .444 Hairlessness of pigs.
 - .445 Heat stroke.

- .446 Hernia.
- .447 Poisoning.
- .448 Thumps.
- .449 Miscellaneous.
- .45 Poultry.
 - .450 General.
 - .451 Bumblefoot.
 - .452 Crop bound.
 - .453 Egg-bound.
 - .454 Leg weakness.
 - .459 Miscellaneous.
- .49 Miscellaneous.
- .7 Control methods.
 - .70 General.
 - .71 Natural.
 - .710 General.
 - .711 Climate.
 - .712 Season.
 - .713 Cycles.
 - .719 Miscellaneous.
 - .72 Artificial.
 - .720 General.
 - .721 Biologics.
 - .722 Change of quarters.
 - .723 Cultivation.
 - .724 Disinfectants.

1. The first part of the document
describes the general situation
of the country and the
state of the economy.
2. The second part of the document
describes the state of the
economy and the state of the
economy.
3. The third part of the document
describes the state of the
economy and the state of the
economy.
4. The fourth part of the document
describes the state of the
economy and the state of the
economy.
5. The fifth part of the document
describes the state of the
economy and the state of the
economy.
6. The sixth part of the document
describes the state of the
economy and the state of the
economy.
7. The seventh part of the document
describes the state of the
economy and the state of the
economy.
8. The eighth part of the document
describes the state of the
economy and the state of the
economy.
9. The ninth part of the document
describes the state of the
economy and the state of the
economy.
10. The tenth part of the document
describes the state of the
economy and the state of the
economy.

.725 Isolation.

.726 Medicinal treatment.

.727 Sanitation.

.729 Miscellaneous.

.79 Miscellaneous.

.8 Regulatory work.

.80 General.

.81 Foreign importation of livestock.

.82 Interstate movement of livestock.

.83 Local quarantine.

.89 Miscellaneous.

.9 Miscellaneous.

.99 Bibliography of literature on animal diseases.

.991 Books.

.992 Bulletins, circulars.

.993 Periodicals.

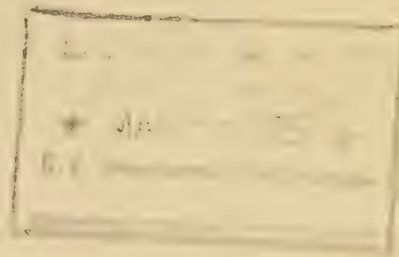
1. The first part of the paper is devoted to a general
discussion of the problem of the existence of solutions
of the system of equations (1) and (2) under the
assumption that the functions $f_i(x)$ and $g_j(x)$ are
continuous and satisfy certain conditions. It is shown
that under these conditions the system has at least one
solution in the class of continuous functions. The
proof is based on the application of the Schauder
fixed point theorem. The second part of the paper
is devoted to the study of the properties of the
solutions of the system. It is shown that the solutions
are unique and depend continuously on the data of the
problem. The third part of the paper is devoted to
the study of the stability of the solutions. It is
shown that the solutions are stable in the sense of
Lyapunov. The fourth part of the paper is devoted to
the study of the asymptotic behavior of the solutions.
It is shown that the solutions tend to zero as $t \rightarrow \infty$.

19
+892 Ec
CHARIBEL P. BARNETT
DEPT LIE

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

6. ANIMAL HUSBANDRY

To be used as a basis of classification of material on
animal husbandry for the Extension Service Handbook and
will be printed and issued as an appendix.

1. The first part of the paper is devoted to a general discussion of the problem.

2. The second part is devoted to a detailed analysis of the results.

3. The third part is devoted to a summary of the results.

4. The fourth part is devoted to a conclusion.

5. The fifth part is devoted to a discussion of the results.

6. The sixth part is devoted to a summary of the results.

7. The seventh part is devoted to a conclusion.

8. The eighth part is devoted to a discussion of the results.

9. The ninth part is devoted to a summary of the results.

10. The tenth part is devoted to a conclusion.

11. The eleventh part is devoted to a discussion of the results.

12. The twelfth part is devoted to a summary of the results.

13. The thirteenth part is devoted to a conclusion.

14. The fourteenth part is devoted to a discussion of the results.

15. The fifteenth part is devoted to a summary of the results.

16. The sixteenth part is devoted to a conclusion.

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
 2. AGRICULTURAL ECONOMICS
 3. AGRICULTURAL ENGINEERING
 4. AGRICULTURAL TECHNOLOGY
 5. ANIMAL DISEASES
 6. ANIMAL HUSBANDRY
 7. DAIRYING
 8. ENTOMOLOGY
 9. FERTILIZERS
 10. FIELD CROPS
 11. FORESTRY
 12. HORTICULTURE
 13. PLANT DISEASES
 14. SOILS
 15. WEATHER
 16. WILD LIFE
 26. ECONOMICS AND MANAGEMENT IN HOME
 27. FOODS AND NUTRITION
 28. HOUSING, EQUIPMENT, and FURNISHING
 29. TEXTILES AND CLOTHING
- APPENDIX - Master classification key

6. ANIMAL HUSBANDRY

.0 General

.01 Principles of breeding

.011 Definition of terms

.012 Tables

.0121 Breeding

.0122 Gestation

.0123 Mating

.0129 Miscellaneous

.019 Miscellaneous

.02 Principles of feeding

.021 Definition of terms

.022 Tables

.029 Miscellaneous

.03 Educational service

.031 Fairs and exhibits

.039 Miscellaneous

.09 Miscellaneous

.1 Horses, mules, asses, ponies.

.10 General

.101 Associations

.102 Exhibit classification

.103 Score cards

.109 Miscellaneous

.11 Horses

.110 General

.111 Draft

- .1111 Belgian
- .1112 Clydesdale
- .1113 French draft
- .1114 Percheron
- .1115 Shire
- .1116 Suffolk
- .1119 Miscellaneous
- .112 Light
 - .1121 American saddle
 - .1122 Arabian
 - .1123 Cleveland Bay
 - .1124 French Coach
 - .1125 Hackney
 - .1126 Morgan
 - .1127 Standardbred
 - .1128 Thoroughbred
 - .1129 Miscellaneous
 - .11291 German Coach
- .119 Miscellaneous
- .12 Mules
- .13 Asses
- .14 Ponies
 - .140 General
 - .141 Hackney
 - .142 Shetland
 - .143 Welsh
 - .149 Miscellaneous

.15 Breeding

.150 General

.151 Purebred industry

.1510 General

.1511 Methods

.1512 Standards.

.1519 Miscellaneous

.152 Work-stock production

.1520 General

.1521 Methods

.1522 Standards

.1529 Miscellaneous

.16 Feeding

.160 General

.161 Feeds

.1611 Concentrates

.1612 Dry roughage

.1613 Pasture

.1619 Miscellaneous

.162 Mineral requirements

.163 Rations

.1631 Breeding

.1632 Growing

.1633 Work

.1639 Miscellaneous

.164 Water

.169 Miscellaneous

.17 Management

.170 General

.171 Care

.1711 Brood mare

.1712 Foal

.1713 Sire

.1714 Work stock

.1719 Miscellaneous

.172 Equipment (See 3.7)

.1721 Shelter

.1722 Harness, hitches, saddles

.1723 Lots, fences

.1729 Miscellaneous

.173 Sanitation (See 5.)

.179 Miscellaneous

.18 Marketing

.180 General

.181 Breeding stock

.182 Work stock

.183 Young stock

.189 Miscellaneous

.19 Miscellaneous

.2 Beef and dual-purpose cattle

.20 General

.201 Associations

.202 Exhibit classification

.203 Score cards

.209 Miscellaneous

.21 Beef breeds

.210 General

.211 Aberdeen-Angus

.212 Galloway

.213 Hereford

.214 Shorthorn

.219 Miscellaneous

.2191 Brahman

.2192 West Highland

.22 Dual-purpose breeds

.220 General

.221 Devon

.222 Milking Shorthorn

.223 Red Polled

.229 Miscellaneous

.23 Breeding

.230 General

.231 Purebred industry

.2310 General

.2311 Methods

.2312 Standards

.2319 Miscellaneous

.232 Beef production

.2320 General

.2321 Methods

.2322 Standards

.2329 Miscellaneous

.239 Miscellaneous

.24 Feeding

.240 General

.241 Feeds

.2411 Concentrates

.2412 Dry roughage

.2413 Pasture

.2414 Roots

.2415 Silage

.2419 Miscellaneous

.242 Mineral requirements

.243 Rations

.2431 Breeding

.2432 Fattening

.2433 Growing

.2439 Miscellaneous

.244 Water

.249 Miscellaneous

.25 Management

.250 General

.251 Castration

.252 Dehorning

.253 Equipment (See 3.7)

.2531 Lots and chutes

.2532 Shelter

.2533 Self feeders, racks, bunks, troughs

.2534 Scales

.2539 Miscellaneous

- .254 Identification (brands, tags)
- .255 Sanitation (See 5.)
- .259 Miscellaneous
- .26 Marketing
 - .260 General
 - .261 Breeding stock
 - .262 Commercial stock
 - .269 Miscellaneous
- .27 Farm beef supply
 - .270 General
 - .271 Slaughter
 - .272 Cutting
 - .273 Curing
 - .274 Hides
 - .279 Miscellaneous
- .29 Miscellaneous
- .3 Sheep and goats
 - .30 General
 - .301 Associations
 - .302 Exhibit classification
 - .303 Score cards
 - .309 Miscellaneous
 - .31 Sheep
 - .310 General
 - .3101 Mutton and lamb
 - .3102 Wool
 - .3109 Miscellaneous

- .311 Fine-wool type
 - .3111 American Merino
 - .3112 Rambouillet
 - .3119 Miscellaneous
- .312 Medium-wool type
 - .3121 Cheviot
 - .3122 Dorset Horn
 - .3123 Hampshire
 - .3124 Oxford
 - .3125 Shropshire
 - .3126 Southdown
 - .3127 Suffolk
 - .3129 Miscellaneous
- .313 Long-wool type
 - .3131 Cotswold
 - .3132 Leicester
 - .3133 Lincoln
 - .3134 Romney Marsh
 - .3139 Miscellaneous
- .314 Crossbred type
 - .3141 Columbia
 - .3142 Corriedale
 - .3149 Miscellaneous
- .319 Miscellaneous
- .32 Goats
 - .320 General
 - .321 Angora

.322 Milk

.3221 Nubian

.3222 Saanen

.3223 Toggenburg

.3229 Miscellaneous

.329 Miscellaneous

.33 Breeding

.330 General

.331 Purebred industry

.3310 General

.3311 Methods

.3312 Standards

.3319 Miscellaneous

.332 Mutton and lamb production

.3320 General

.3321 Methods

.3322 Standards

.3329 Miscellaneous

.339 Miscellaneous

.34 Feeding

.340 General

.341 Feeds

.3411 Concentrates

.3412 Dry roughage

.3413 Pasture

.3414 Succulents

.3419 Miscellaneous

- .342 Mineral requirements
- .343 Rations
 - .3431 Breeding
 - .3432 Fattening
 - .3433 Growing
 - .3439 Miscellaneous
- .344 Water
- .349 Miscellaneous
- .35 Management
 - .350 General
 - .351 Castration
 - .352 Docking
 - .353 Equipment (See 3.7)
 - .3531 Lots, creeps, fences
 - .3532 Shelter
 - .3533 Self feeders, racks, bunks, troughs
 - .3539 Miscellaneous
 - .354 Flushing
 - .355 Identification (brands, tags)
 - .356 Lambing
 - .357 Sanitation (See 5.)
 - .358 Shearing
 - .359 Miscellaneous
- .36 Marketing
 - .360 General
 - .361 Breeding stock

- .362 Commercial stock
- .363 Mohair
- .364 Wool
- .369 Miscellaneous
- .37 Farm mutton supply
 - .370 General
 - .371 Slaughter
 - .372 Preparation
 - .373 Utilization
 - .379 Miscellaneous
- .39 Miscellaneous
- .4 Hogs
 - .40 General
 - .401 Associations
 - .402 Exhibit classification
 - .403 Score cards
 - .409 Miscellaneous
 - .41 Lard type
 - .410 General
 - .411 Berkshire
 - .412 Big Black pig
 - .413 Chester White
 - .414 Duroc-Jersey
 - .415 Hampshire
 - .416 Mule-foot
 - .417 Poland China
 - .418 Spotted Poland China

- .419 Miscellaneous
 - .4191 Cheshire
 - .4192 Essex
- .42 Bacon type
 - .420 General
 - .421 Tamworth
 - .422 Yorkshire
 - .429 Miscellaneous
- .43 Breeding
 - .430 General
 - .431 Purebred industry
 - .4310 General
 - .4311 Methods
 - .4312 Standards
 - .4319 Miscellaneous
 - .432 Pork production
 - .4320 General
 - .4321 Methods
 - .4322 Standards
 - .4329 Miscellaneous
 - .439 Miscellaneous
- .44 Feeding
 - .440 General
 - .441 Feeds
 - .4411 By-products
 - .4412 Concentrates
 - .4413 Forage

- .4414 Garbage
- .4415 Roughage
- .4419 Miscellaneous
- .442 Mineral requirements
- .443 Rations
 - .4431 Breeding
 - .4432 Fattening
 - .4433 Growing
 - .4439 Miscellaneous
- .444 Water
- .449 Miscellaneous
- .45 Management
 - .450 General
 - .451 Castration
 - .452 Equipment (See 3.7)
 - .4521 Brooding crate
 - .4522 Fences, lots, loading chutes
 - .4523 Fountains and oilers
 - .4524 Shelter
 - .4525 Self feeders, racks, creeps, troughs
 - .4529 Miscellaneous
 - .453 Identification (tags, marks)
 - .454 Sanitation (See 5.)
 - .459 Miscellaneous
- .46 Marketing
 - .460 General
 - .461 Breeding stock

- .462 Commercial stock
- .469 Miscellaneous
- .47 Farm pork supply
 - .470 General
 - .471 Slaughter
 - .472 Cutting
 - .473 Curing
 - .479 Miscellaneous
- .49 Miscellaneous
- .5 Poultry
 - .50 General
 - .501 Standardbred industry
 - .5010 General
 - .5011 Associations
 - .5012 Score cards
 - .5019 Miscellaneous
 - .502 Egg and poultry-meat industry
 - .5020 General
 - .5021 Back-yard
 - .5022 Commercial
 - .5023 Farm
 - .5029 Miscellaneous
 - .51 Chickens
 - .510 General
 - .511 American class
 - .5111 Buckeye
 - .5112 Dominique
 - .5113 Java

.5114 Jersey Black Giant

.5115 Plymouth Rock

.5116 Rhode Island Red

.5117 Rhode Island White

.5118 Wyandotte

.5119 Miscellaneous

.51191 Chantecler

.512 Mediterranean class

.5121 Ancona

.5122 Black Spanish

.5123 Blue Andalusian

.5124 Leghorn

.5125 Minorca

.5126 White-faced

.5129 Miscellaneous

.513 Continental class

.5131 Buttercup

.5132 Campine

.5139 Miscellaneous

.514 Asiatic class

.5141 Brahma

.5142 Cochin

.5143 Langshan

.5149 Miscellaneous

.515 English class

.5151 Cornish

.5152 Dorking

- .5153 Orpington
- .5154 Redcap
- .5155 Sussex
- .5159 Miscellaneous
- .516 French class
 - .5161 Cre'vecoeur
 - .5162 Faverolles
 - .5163 Houdan
 - .5164 La Fleche
 - .5169 Miscellaneous
- .517 Ornamental class
 - .5171 Frizzle
 - .5172 Game
 - .5173 Hamburg
 - .5174 Malay
 - .5175 Polish
 - .5176 Sultan
 - .5177 Sumatra
 - .5179 Miscellaneous
- .518 Bantam
 - .5181 Brahma
 - .5182 Cochin
 - .5183 Game
 - .5184 Japanese
 - .5185 Malay
 - .5186 Polish
 - .5187 Sebright

- .5188 Silky
- .5189 Miscellaneous
- .519 Miscellaneous
- .52 Ducks
 - .520 General
 - .521 Egg class
 - .5211 Indian Runner
 - .5219 Miscellaneous
 - .522 Meat class
 - .5221 Aylesbury
 - .5222 Buff
 - .5223 Cayuga
 - .5224 Muscovy
 - .5225 Pekin
 - .5226 Rouen
 - .5227 Swedish
 - .5229 Miscellaneous
 - .523 Ornamental class
 - .5231 Black East India
 - .5232 Call
 - .5233 Created White
 - .5239 Miscellaneous
- .529 Miscellaneous
- .53 Geese
 - .530 General
 - .531 Breed
 - .5311 African

- .5312 Canadian or wild
- .5313 Chinese
- .5314 Egyptian
- .5315 Embden
- .5316 Toulouse
- .5319 Miscellaneous
 - .53191 Mongrel
 - .53192 Sebastopol
- .539 Miscellaneous
- .54 Turkeys
 - .540 General
 - .541 Variety
 - .5411 Black
 - .5412 Bourbon Red
 - .5413 Bronze
 - .5414 Narragansett
 - .5415 Slate
 - .5416 White Holland
 - .5419 Miscellaneous
 - .549 Miscellaneous
- .55 Breeding
 - .550 General
 - .551 Standards
 - .552 Systems
 - .559 Miscellaneous
- .56 Feeding
 - .560 General

.561 Feeds

.5611 By-products

.5612 Grain

.5613 Green

.56131 Cultivated

.56132 Free range

.56139 Miscellaneous

.5614 Mash

.56141 Dry

.56142 Wet

.56149 Miscellaneous

.5619 Miscellaneous

.562 Mineral requirements

.5621 Grit

.5622 Lime

.5623 Charcoal

.5629 Miscellaneous

.563 Rations

.5631 Breeding

.5632 Fattening

.5633 Growing, chick feed

.5634 Laying

.5639 Miscellaneous

..564 Water

.569 Miscellaneous

.57 Management

- .570 General
- .571 Brooding
- .572 Caponizing
- .573 Culling
- .574 Equipment (See 3.7)
 - .5731 Artificial lighting
 - .5732 Dust and grit box
 - .5733 Fountains
 - .5734 Incubators
 - .5735 Roosts, nests
 - .5736 Self feeders, troughs
 - .5737 Shelter
 - .57371 Brooder
 - .57372 House
 - .57373 Shade
 - .57379 Miscellaneous
 - .5738 Yards, fences, hurdles
 - .5739 Miscellaneous
- .575 Identification (band, tag, punch)
- .576 Incubation
- .577 Sanitation (See 5.)
- .579 Miscellaneous
- .58 Marketing
 - .580 General
 - .581 Baby chicks
 - .582 Breeding stock
 - .583 Dressed poultry

- .5831 Drawing
- .5832 Dry picking
- .5833 Killing
- .5834 Packing
- .5835 Scalding
- .5839 Miscellaneous
- .584 Eggs
 - .5841 Hatching
 - .5842 Market
 - .58421 Candling
 - .58422 Packing
 - .58423 Preservation
 - .58429 Miscellaneous
 - .5849 Miscellaneous
- .585 Live poultry
- .589 Miscellaneous
- .59 Miscellaneous
 - .591 Guinea fowl
 - .5911 Variety
 - .59111 Lavender
 - .59112 Pearl
 - .59113 White
 - .59119 Miscellaneous
 - .592 Peafowl
 - .593 Pigeons
 - .5931 Variety
 - .59311 Carneau

- .59312 Homer
- .59313 Maltese
- .59314 Runt
- .59315 Swiss Mondaine
- .59316 White King
- .59319 Miscellaneous

.8 Regulatory work (See 5.8)

.80 General

.81 Animal comfort requirements

.810 General

.811 28-hour law

.819 Miscellaneous

.82 Disease-control requirements

.820 General

.821 Certification of health

.829 Miscellaneous

.89 Miscellaneous

.9 Miscellaneous

.91 Cats

.92 Dogs

.93 Experimental animals

.930 General

.931 Guinea pigs

.932 Mice

.933 Rabbits

.934 Rats

.939 Miscellaneous

1. The first part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of acquiring knowledge, but also a means of developing the ability to think critically and to make sound judgments.

2. The second part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

3. The third part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

4. The fourth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

5. The fifth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

6. The sixth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

7. The seventh part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

8. The eighth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

9. The ninth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

10. The tenth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

11. The eleventh part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

12. The twelfth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

13. The thirteenth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

14. The fourteenth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

.99 Bibliography of literature on Animal Husbandry

.991 Books

.992 Bulletins, circulars

.993 Periodicals

17
2-24-24
CLARIBEL K. BARNETT

LIBRARY

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.

CLASSIFICATION KEY

7. DAIRYING

To be used as a basis of classification of material on
dairying for the Extension Service Handbook
and will be printed and issued as an appendix.

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING, EQUIPMENT, and FURNISHING
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - Master classification key

7. DAIRYING

.0 General

.1 Dairy farming

.10 General

.11 Dairy-crop production

.12 Dairy-farm management

.13 Dairy cattle

.130 General

.131 Breed

.1311 Ayrshire

.1312 Brown Swiss

.1313 Dutch Belted

.1314 Guernsey

.1315 Holstein-Friesian

.1316 Jersey

.1319 Miscellaneous

.13191 Devon

.13192 Dexter and Kerry

.13193 French Canadian

.13194 Milking Shorthorn

.13195 Red Polled

.13196 Milk goats

.132 Breed development

.1321 Principles

.1322 Practices

.1323 Associations

.13231 National

.13232 State

- .13233 County or local
- .13234 Bull
- .13239 Miscellaneous
- .1324 Judging
- .1329 Miscellaneous
- .133 Care and management
 - .1331 Records and testing
 - .13311 Official testing
 - .13312 Individual
 - .13313 Cow-testing association
 - .13319 Miscellaneous
 - .1332 Calves and young stock
 - .1333 Cows
 - .1334 Bulls
 - .1339 Miscellaneous
- .14 Nutrition
 - .140 General
 - .141 Feed stuffs
 - .1411 Concentrates
 - .1412 Dry roughage
 - .14121 Hay
 - .14122 Stover and corn fodder
 - .14123 Straw
 - .14129 Miscellaneous
 - .1413 Succulents
 - .14131 Pasture
 - .14132 Silage
 - .14133 Roots

.14134 Soiling

.14139 Miscellaneous

.1419 Miscellaneous

.142 Feeding practice

.143 Feeding standard

.144 Ration

.145 Nutrition studies

.149 Miscellaneous

.15 Dairy buildings

.150 General

.151 Barn

.1511 Location

.1512 Type and plan

.1513 Construction

.15131 Material

.15132 Ventilation and lighting

.15133 Water supply

.15134 Hay storage

.15135 Grain storage

.15139 Miscellaneous

.1514 Equipment

.1519 Miscellaneous

.152 Silo

.1521 Location

.1522 Type and plan

.1523 Capacity

.1524 Construction

.1525 Filling

.1529 Miscellaneous

100

1890

- .153 Ice house
 - .1531 Location
 - .1532 Plan
 - .1533 Size
 - .1534 Drainage
 - .1535 Construction
 - .1536 Filling
 - .1539 Miscellaneous
- .154 Milk house
 - .1541 Location
 - .1542 Plan
 - .1543 Construction
 - .1544 Equipment
 - .1545 Sanitation
 - .1549 Miscellaneous
- .16 Cost of milk production
 - .160 General
 - .161 Collection of data
 - .1611 Feed
 - .1612 Labor
 - .1613 Buildings
 - .1614 Equipment
 - .1615 Credits
 - .1619 Miscellaneous
 - .162 Interpretation of data
 - .169 Miscellaneous
- .19 Miscellaneous
- .2 Market milk and cream

- .20 General
- .21 Sanitary production
 - .210 General
 - .211 Cows
 - .212 Milking
 - .213 Milking machine
 - .214 Cream separator
 - .215 Utensils
 - .216 Sterilizers
 - .217 Cooling
 - .218 Pasteurization
 - .219 Miscellaneous
- .22 Quality
 - .220 General
 - .221 Adulteration
 - .222 Bacteria
 - .223 Sediment
 - .224 Flavor and odor
 - .229 Miscellaneous
- .23 Marketing
 - .230 General
 - .231 Method
 - .232 Transportation
 - .233 Grade
 - .2311 Certified
 - .2312 Raw
 - .2313 Pasteurized
 - .2319 Miscellaneous

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

- .239 Miscellaneous
- .24 Food value
 - .240 General
 - .241 Composition
 - .242 Body needs
 - .243 Milk-feeding demonstration
 - .244 Milk utilization
 - .245 Milk campaign
 - .249 Miscellaneous
- .25 Testing
 - .250 General
 - .251 Bacteria count
 - .252 Butterfat
 - .253 Solids not fat
 - .254 Acidity
 - .255 Reduction
 - .259 Miscellaneous
- .26 Scoring
 - .260 General
 - .261 Dairy farm
 - .262 Milk plant
 - .263 Milk and cream
 - .269 Miscellaneous
- .27 Milk plant
 - .270 General
 - .271 Location
 - .272 Construction
 - .273 Equipment
 - .274 Operation

Chicago, Ill.

September 10, 1900.

My dear Mr. Brewster:

I have just received your letter of the 8th.

I am very glad to hear from you.

I am sure you will find the enclosed of interest.

I am, very respectfully,

Yours truly,

John G. Thompson.

Enclosed are two copies of the

report of the

Commissioner of the

State of Illinois.

I am, very respectfully,

Yours truly,

John G. Thompson.

I am, very respectfully,

Yours truly,

John G. Thompson.

I am, very respectfully,

Yours truly,

John G. Thompson.

I am, very respectfully,

Yours truly,

John G. Thompson.

I am, very respectfully,

Yours truly,

John G. Thompson.

- .2741 Clarifying
- .2742 Standardizing
- .2743 Pasteurizing
- .2744 Homogenizing
- .2745 Bottling
- .2746 Bottle washing
- .2749 Miscellaneous
- .275 Delivery
- .276 Cooperative plant
- .279 Miscellaneous
- .29 Miscellaneous
- .3 Milk products
 - .30 General
 - .31 Butter
 - .310 General
 - .311 Manufacture
 - .3111 Milk and cream (see .2)
 - .31111 Cream separator
 - .31112 Cooling tank
 - .31119 Miscellaneous
 - .3112 Cream delivery
 - .31121 Local
 - .31122 Route
 - .31123 Direct shipment
 - .31124 Cream stations
 - .31129 Miscellaneous
 - .3113 Cream grading
 - .3114 Pasteurization of cream

- .3115 Neutralization
- .3116 Ripening cream
- .3117 Churning
 - .31171 Temperature
 - .31172 Size of granules
 - .31173 Washing
 - .31174 Salting
 - .31175 Working
 - .31176 Control of composition
 - .31177 Packing
 - .31178 Paraffining of tub
 - .31179 Miscellaneous
- .3118 Cleaning and sterilizing utensils
- .3119 Miscellaneous
- .312 Marketing
 - .3121 Grade
 - .3122 Scoring
 - .3123 Package
 - .3124 Price
 - .3129 Miscellaneous
- .313 Food value
 - .3131 Digestibility
 - .3132 Vitamines
 - .3139 Miscellaneous
- .314 Tests
 - .3141 Moisture
 - .3142 Fat
 - .3143 Salt

1911

January 1st

February 1st

March 1st

April 1st

May 1st

June 1st

July 1st

August 1st

September 1st

October 1st

November 1st

December 1st

January 1st

February 1st

March 1st

April 1st

May 1st

June 1st

July 1st

August 1st

September 1st

October 1st

November 1st

December 1st

1912

- .3144 Substitutes
- .3149 Miscellaneous
- .315 Storing
- .316 Standards
- .317 Renovated butter
 - .3171 Raw material
 - .3172 Manufacture
 - .3173 Standards
 - .3179 Miscellaneous
- .318 Creamery
 - .3181 Location
 - .3182 Construction
 - .3183 Equipment
 - .3184 Operation
 - .3185 Sanitation
 - .3186 Accounting
 - .3187 Association
 - .3189 Miscellaneous
- .32 Cheese
 - .320 General
 - .321 Variety
 - .322 Milk test (see .26)
 - .323 Manufacture
 - .324 Yield
 - .325 Composition and food value
 - .326 Marketing

- .3261 Grading
- .3262 Standards and nomenclature
- .3269 Miscellaneous
- .327 Test
- .328 Cheese factory
 - .3281 Location
 - .3282 Construction
 - .3283 Equipment
 - .3284 Operation
 - .3285 Sanitation
 - .3286 Accounting
 - .3287 Association
 - .3289 Miscellaneous
- .329 Miscellaneous
- .33 Ice cream
 - .330 General
 - .331 Manufacture
 - .332 Test
 - .333 Standards
 - .334 Storage defects
 - .335 Marketing
 - .336 Food value
 - .337 Factory
 - .3371 Location
 - .3372 Construction
 - .3373 Equipment
 - .3374 Operation
 - .3375 Sanitation

- .3376 Accounting
- .3377 Association
- .3379 Miscellaneous
- .339 Miscellaneous
- .34 Condensed milk
 - .340 General
 - .341 Manufacture
 - .342 Test
 - .343 Standards
 - .344 Marketing
 - .345 Food value
 - .346 Storage defects
 - .347 Condensery
 - .3461 Location
 - .3462 Construction
 - .3463 Equipment
 - .3464 Operation
 - .3465 Sanitation
 - .3466 Accounting
 - .3467 Association
 - .3469 Miscellaneous
 - .349 Miscellaneous
- .35 Dried milk
 - .350 General
 - .351 Manufacture
 - .352 Test
 - .353 Standards

- .354 Storage defects
- .355 Marketing
- .356 Food value
- .357 Drying plant
 - .3571 Location
 - .3572 Construction
 - .3573 Equipment
 - .3574 Operation
 - .3575 Sanitation
 - .3576 Accounting
 - .3577 Association
 - .3579 Miscellaneous
- .359 Miscellaneous
- .36 By-products
 - .360 General
 - .361 Skim milk
 - .362 Buttermilk
 - .363 Fermented milk
 - .364 Whey
 - .365 Cottage cheese
 - .366 Casein
 - .367 Milk sugar
 - .368 Albumen
 - .369 Miscellaneous
- .39 Miscellaneous
- .8 Regulatory work
 - .80 General
 - .81 Butter

- .82 By-products
- .83 Cheese
- .84 Condensed and evaporated milk
- .85 Dried milk
- .86 Ice cream
- .87 Market milk and cream
- .88 Renovated butter
- .89 Miscellaneous
- .9 Miscellaneous
- .90 Bibliography of literature on dairying

1.9
E1002 E2
CLARIBEL K. BARNETT

Library

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D.C.

CLASSIFICATION KEY

8. ENTOMOLOGY

(To be used as a basis of classification of material on
entomology for the Extension Service Handbook, and will
be printed and issued as an appendix.)

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING AND EQUIPMENT
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - master classification key.

8. ENTOMOLOGY

.0 General

.1 Cultivated-plant insects

.10 General

.11 Cereal and forage insects

.110 General

.111 Corn

.112 Wheat

.113 Alfalfa

.114 Clover

.115 Soybean and cowpea

.116 Kafir and milo maize

.117 Other small grains

.118 Grass

.119 Miscellaneous

.12 Fruit insects

.120 General

.121 Apple

.122 Pear

.123 Peach

.124 Plum

.125 Cherry

.126 Grape

.127 Currant and gooseberry

.128 Citrus and subtropical fruits

.129 Miscellaneous

.13 Truck crop insects

- .130 General
- .131 Potato
- .132 Tomato
- .133 Cucumbers and melons
- .134 Bean
- .135 Cabbage
- .136 Peas
- .137 Strawberry
- .138 Onion
- .139 Miscellaneous

.14 Southern field-crop insects

- .140 General
- .141 Cotton
- .142 Tobacco
- .143 Sugar cane
- .144 Rice
- .145 Peanut
- .149 Miscellaneous

.15 Greenhouse insects

- .150 General
- .151 , Rose
- .152 Chrysanthemum
- .153 Carnation
- .154 Snapdragon
- .155 Sweet pea
- .156 Violet and pansy
- .157 Potted and bedding plants
- .159 Miscellaneous

.16 Ornamental-plant insects

.160 General

.161 Rose

.162 Bulb plants

.163 Perrenial plants

.164 Annual plants

.165 Climbers

.166 Woody deciduous shrubs

.167 Evergreen shrubs

.168 Aquatic plants

.169 Miscellaneous

.19 Miscellaneous plant insects

.2 Man and domestic-animal pests

.20 General

.21 Man

.22 Cattle

.23 Hog

.24 Horse and mule

.25 Sheep and goats

.26 Cat and dog

.27 Poultry

.29 Miscellaneous

.3 Forest and shade-tree insects

.30 General

.31 Bark beetles

.32 Other insects affecting trees

.33 Crude forest products

.34 Finished forest products

- .35 Rustic work
- .36 Termites
- .37 Nursery trees and seeds
- .38 Shade trees
- .39 Miscellaneous
- .4 Stored-product and household insects
 - .40 General
 - .41 Grain and grain products
 - .42 Bean and pea
 - .43 Drugs
 - .44 Tobacco products
 - .45 Fabrics
 - .46 Hides, feathers, and hair
 - .47 Meats and dairy products
 - .48 Dried fruits
 - .49 Miscellaneous
- .5 Beekeeping
 - .50 General
 - .51 Bee behavior and physiology
 - .52 Management
 - .53 Honey crop
 - .54 Wintering
 - .55 Diseases
 - .56 Marketing
 - .57 Beekeeping regions
 - .59 Miscellaneous

.6 Regulatory work

.60 General

.69 Miscellaneous

.8 Control of insects

.80 General

.81 Natural

.82 Cultural

.83 Stomach poisons

.84 Contact poisons

.85 Fumigants

.86 Repellents

.87 Trapping devices

.88 Machinery

.880 General

.881 Spray

.882 Dusting

.889 Miscellaneous

.89 Miscellaneous

.9 Miscellaneous

.91 Sericulture

.92 Lac insects

.93 Flax insects

.99 Bibliography of literature on entomology.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.

CLASSIFICATION KEY

9. FERTILIZERS

To be used as a basis of classification of material on
fertilizers for the Extension Service Handbook and
will be printed and issued as an appendix.

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING, EQUIPMENT AND FURNISHING
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - Master classification key.

9. FERTILIZERS

.0 General

.01 History

.011 Plant nutrition

.012 Nitrates

.013 Phosphates

.014 Potash

.015 Manures

.016 Mixed fertilizers

.017 Concentrated fertilizers

.019 Miscellaneous

.02 Statistics

.021 Exports

.022 Imports

.023 Consumption

.024 Valuation

.029 Miscellaneous

.1 Materials (Raw materials, commercial fertilizers, and manures)

.10 General

.11 Nitrogen fertilizers

.110 General

.111 Inorganic

.1111 Nitrate of soda

.1112 Ammonium sulphate

.1113 Potassium nitrate

.1119 Miscellaneous

1. The first part of the paper

is devoted to the

study of the

properties of

the function

defined by

the equation

and the

boundary conditions

are given by

the system

of equations

and the

initial conditions

are given by

the system

of equations

and the

boundary conditions

are given by

the system

of equations

and the

- .112 Fixed nitrogen products
 - .1121 Ammonium nitrate
 - .1122 Ammonium phosphate
 - .1123 Calcium cyanamid
 - .1124 Calcium nitrate
 - .1125 Urea
 - .1129 Miscellaneous
- .113 Organic
 - .1131 Animal
 - .11311 Dried blood
 - .11312 Fish scrap
 - .11313 Guano
 - .11314 Horn and hoof meal
 - .11315 Leather meal
 - .11316 Tankage
 - .11317 Wool and hair waste
 - .11319 Miscellaneous
 - .1132 Vegetable
 - .11321 Castor pomace
 - .11322 Cottonseed meal
 - .11323 Linseed meal
 - .11324 Rape meal
 - .11329 Miscellaneous
- .114 Nitrifying crops
 - .1141 Alfalfa
 - .1142 Clover

- .1143 Cowpea
- .1144 Soybean
- .1149 Miscellaneous
- .115 Sewage
- .116 Soil inoculation
 - .1161 Bacteria
 - .1162 Nitrification
 - .1169 Miscellaneous
- .119 Miscellaneous
- .12 Phosphate fertilizers
 - .120 General
 - .121 Basic slag
 - .122 Bone ash
 - .123 Bone black
 - .124 Guano
 - .125 Ground raw rock (floats)
 - .126 Ammonium phosphate
 - .127 Potassium phosphate
 - .128 Superphosphate (acid phosphate)
 - .129 Miscellaneous
- .13 Potash fertilizers
 - .130 General
 - .131 Mineral
 - .1311 Kainit
 - .1312 Manure salts
 - .1313 Muriate of potash

- .1314 Potassium carbonate
- .1315 Potassium nitrate
- .1316 Sulphate of potash
- .1317 Sylvinit
- .1318 Insoluble potash materials
 - .13181 Alunite
 - .13182 Feldspar
 - .13183 Greensand
 - .13184 Leucite
 - .13189 Miscellaneous
- .1319 Miscellaneous
- .132 Vegetable
 - .1321 Corncob ashes
 - .1322 Cottonseed-hull ashes
 - .1323 Seaweed (kelp)
 - .1324 Tobacco stems and stalks
 - .1325 Wood ashes
 - .1329 Miscellaneous
- .133 Natural brines
- .139 Miscellaneous
- .14 Mixed fertilizers
 - .140 General
 - .141 Factory mixtures
 - .142 Home mixing
 - .149 Miscellaneous

- .15 Other soil amendments
 - .150 General
 - .151 Ground limestone
 - .152 Gypsum and plaster
 - .153 Iron sulphate
 - .154 Lime
 - .155 Manganese salts
 - .156 Silicate of soda
 - .157 Sulphate and carbonate of magnesia
 - .158 Sulphur
 - .159 Miscellaneous
- .16 Farmyard, stable, and vegetable manures
 - .160 General
 - .161 Animal manure
 - .1611 Horse
 - .1612 Cow
 - .1613 Pig
 - .1614 Sheep
 - .1615 Poultry
 - .1619 Miscellaneous
 - .162 Composts
 - .1621 Method of composting
 - .1622 Composted product
 - .1629 Miscellaneous
 - .163 Vegetable manures
 - .1631 Green manures

- .1632 Dried peat
- .1633 Leaves
- .1634 Muck
- .1635 Seaweed
- .1639 Miscellaneous
- .19 Miscellaneous
- .2 Research
 - .20 General
 - .21 Resources
 - .210 General
 - .211 Nitrogen
 - .212 Phosphates
 - .213 Potash
 - .219 Miscellaneous
 - .22 Processes
 - .23 Technical studies (plot, under glass and laboratory)
 - .230 General
 - .231 Nitrogen
 - .232 Phosphates
 - .233 Potash
 - .234 Manures
 - .235 Lime and ground limestone
 - .2351 Relation to soils
 - .2352 Relation to fertilizers
 - .2353 Relation to plants
 - .2359 Miscellaneous
 - .239 Miscellaneous

- .24 Loss of fertilizer ingredients
 - .240 General
 - .241 By crops
 - .242 By drainage
 - .249 Miscellaneous
- .25 Application to soil
 - .250 General
 - .251 Method
 - .259 Miscellaneous
- .26 Economics
- .29 Miscellaneous
- .3 Industry
 - .30 General
 - .31 Manufacture
 - .310 General
 - .311 Materials
 - .312 Method
 - .313 Cost
 - .319 Miscellaneous
 - .32 Transportation
 - .33 Distribution
 - .39 Miscellaneous
- .8 Regulatory work
 - .80 General
 - .81 Adulteration
 - .82 Analysis

- .83 Frauds
- .84 Inspection
- .85 Legislation
- .89 Miscellaneous
- .9 Miscellaneous
- .99 Bibliography of literature on fertilizers

###

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.

EXTENSION SPECIALISTS*

By C. B. Smith.

There are approximately 700 extension specialists in the United States today. About 75 per cent of these are full-time specialists and 25 per cent part-time specialists.

Of the total number of extension specialists 65 per cent, or 363 full-time and 100 part-time specialists are in the Northern and Western States. The total cost of maintaining these specialists is \$2,918,672, or about 17.3 per cent of the total cost of extension work in all lines, which is \$16,836,743.

In the Northern States full-time specialists are grouped as follows:

	: Number	: Average salary
Home economics	69	2170
Animal husbandry	39	2870
Agronomy	37	2874
Poultry	34	2469
Dairying	31	2685
Horticulture	30	2705
Farm management	27	2543
Biology	26	2100
Rural engineering ...	16	3002
Entomology	14	2050
Plant pathology	13	2792
Markets	11	3233
Extension schools ...	10	
Veterinarian	6	3300
Forestry	0	
Total	363	

The number of full-time specialists within the States varies from none in Arizona, Delaware and Rhode Island to 37 in New York with 55 counties, 29 in Iowa with 100 counties, 24 in Ohio with 88 counties, and 23 in Pennsylvania.

The number of visits made by extension specialists to the various counties of the States varies all the way from 101 visits by 23 specialists to one county in one State to no visits by any specialist to 13 counties in another State, 5 counties of which had agents.

*Paper presented at the conference of extension directors of the Western States at Salt Lake City, Utah, February 8 to 10, 1921.

To illustrate the way in which the field work of extension specialists is planned and distributed in the various States, the work in one State may be shown as follows:

Chart A. - Distribution of Work of Extension Specialists to Counties.

County	: Number of specialists visiting	: Number of visits made	:	County	: Number of specialists visiting	: Number of visits made
A	19	57	::	Q	10	15
B	28	51	::	R	12	14
C	19	42	::	S	8	14
D	18	39	::	T	10	11
E	12	36	::	U	8	11
F	15	25	::	V	9	9
G	12	25	::	W	4	8
H	13	22	::	X	6	7
I	10	22	::	Y	5	6
J	12	21	::	Z	3	5
K	13	19	::	A-1	4	4
L	12	17	::	B-1	3	4
M	9	17	::	C-1	3	3
N	14	16	::	D-1	3	3
O	11	16	::	E-1	3	3
P	10	15	::			

Chart B. - Comparison of Number of Visits During Year by Related Groups of Specialists.

Line of work	: Number of specialists visiting	: Number of visits made
Dairying	5	79
Livestock	2	100
Stock diseases	7	45
Poultry	1	32
Soils	1	28
Agronomy	7	85
Potatoes-horticulture	1	40
Fairs	2	18
Plant disease	4	45
Rodent control	4	47
Child welfare	1	12
General home economics	1	15
Farm management	1	6
Bees	1	5

Chart A raises a number of questions bearing on the matter of administration. First, eight counties or practically one-fourth of the counties in the State having county agents receive more visits from specialists than the entire remaining three-fourths of the counties with agents. It is true, these eight counties have about one-third of the total number of farms and one-third of the total value of the State's crop and livestock products for the year. But may it not require explanation as to why we give one-fourth of our counties having only one-third the number of farms and agriculture as the remaining three-fourths, as much of the time of our specialists as we give the remaining three-fourths?

Again, as regards agricultural enterprise, several counties in the State exceed County A. Why then should County A receive more visits and more attention from practically all the specialists than any other county? Is it because the county agents or the farmers in these counties are more in need of help than elsewhere, or is it because they are very efficient and therefore recognize the value and utilize the services of the specialists to a greater extent than elsewhere? What is the matter with the Counties V to Z? Do the farmers or the county agents in these counties fail to recognize the value, and ask for the assistance of specialists? If they do not, is that any indication to the director that he ought to go out there and see what the matter is?

Again, are Counties A to U easier to reach by railroad from the college than the remaining counties of the State, and therefore first to be served? If this is the situation will it not be necessary for the director to plan more definitely for giving help in a more systematic manner to the counties farther away?

The data brought out in this table, which is typical of what may be shown in practically any State thus far examined, either East or West, seems to call for greater consideration on the part of supervising officers in planning the work of the specialists; and this raises the question as to how the plan of work of the specialists shall be determined and just what their functions are.

I am convinced that on the whole our specialists' work is not so well planned and organized as it should be. I do not think that it is functioning as efficiently as is the county agent work. I am convinced that our extension specialists as a whole do not take themselves and their function in the extension system seriously enough, nor assume sufficient responsibility for either organizing or putting into effect the full program covering their respective lines. They do not realize with sufficient keenness that the responsibility for getting their subject put over and made effective in the State rests upon them; that they are essentially the supervising officers for that subject; that they are not only responsible for what is taught, but for giving each of the extension agencies in the State a plan for organizing and doing the work in their subject that is sound and effective.

They understand quite generally that they are to work through the county agents; but they do not appear to understand that they are the ones

that should furnish the county agent with plans for the work. Too frequently, also, they fail entirely to understand that they are the ones to solicit the assistance of the county home demonstration agents and the boys' and girls' club agents, and give to each a plan for the work, according to their respective constituencies. Nor do they seem to realize that not only the county agents, the home demonstration agents and the boys' and girls' club agents, but also the farmers' institute speakers, the grange, the equity, the various State farmers' organizations, should all be given plans, encouragement and assistance in putting on the subject for which the specialists are respectively responsible.

The specialists, likewise, only in part seem to understand that it is their duty to furnish printed matter, bulletins, circulars, reports, press matter, lantern slides, charts, and similar material, for the use of the county agents, home demonstration agents, boys' and girls' club agents, institute speakers, extension schools, and other extension agencies, and that not only should the specialists work through these agencies, but also make the daily news and agricultural press likewise their assistants in furthering their program.

Stated in another way, our extension specialists up to now have not studied, planned and organized their work as generals. They have not mapped the problem and then marshalled all their forces for attack, using every available weapon. Too frequently they have contented themselves with a detached company, while the very large army which they might direct in carrying on the work is marking time. For example, the poultry extension specialist may work with and through the boys' and girls' club groups in his efforts to improve the poultry industry of the States. Sometimes he works through the home demonstration agents; sometimes through the county agents; but rarely does he work at the same institution through all these groups.

As a general charged with the responsibility of improving the poultry industry of the entire State should he not encourage and furnish plans, and in a way direct the poultry work of every one of these three county groups? And to my mind he will teach each of these three groups not only subject matter, but also actually how to organize the work of each group for most effective results.

Here, again, the specialist has for the most part been deficient. He has left the various county agents to do their own organizing in their own way. That may be all right at the outset, but as the poultry specialist visits one county agent after another and studies their various methods of organizing the poultry work, and compares the results they are getting by the different methods, will he not soon become a critic of these methods? Criticism, of course, seldom gets anywhere unless it is constructive criticism, and will it not inevitably follow, therefore, that the poultry specialist will offer constructive suggestions to these county agents whose work is below the best, and help them put the poultry extension work on a more result-getting basis? Will the poultry specialist, likewise, not make the same studies, and follow about the same program with the home demonstration agents and boys' and girls' club agents?

But why should the extension specialist limit his efforts to these three groups of extension agents? They are not the only mediums through which agriculture may be improved. There is the ever present daily and agricultural press. The specialist who neglects the press is overlooking a very efficient force in extension work. In many States there is a separate force of institute speakers. The poultry specialist should not overlook this group, but furnish each speaker with the best information he has on poultry, and his plans for the entire State. I am not so much concerned as to just how much time the poultry specialist spends in the field as I am that he shall know accurately the poultry extension needs of every part of his State, and be able to furnish plans for every group that ought to be doing or can be induced to do poultry extension work.

I am not blaming the specialists for their seemingly partial and inadequate plans. They have but lately come on the job in its present form. Their revised job has not been clearly outlined to them, and they have mistaken the request for them to work through the county agents to mean that when they had presented their subject to the county agent, their job was done, their responsibility ended, and they were ready to return to the college.

If we get the same service from our specialists as we are getting from some of our most efficient county agents, I am wondering if extension directors will not have to give the extension specialists the same detailed attention that they have given the county agent system. For the past six years the directors have had an immediate officer, the county agent leader and his assistants in charge of each 10 to 12 county agents. These leaders and assistants have been giving their whole time to helping the county agents, and because the work is new, also, the extension director himself has been giving more specific attention to the county agent project, perhaps, than to any other. As a result, we now have a very well-organized and efficient county extension machine. The specialists, on the other hand, have had practically no one to look specifically after them, nor have they had the privilege of conferring together to the extent that the county agent leaders have. The directors themselves have been too busy with administrative affairs to give the specialists detailed attention. Hence, they have in many cases been continuing in a slightly speeded-up form the old form of extension work common before the county agent system came into existence.

However, is not the time now here when the director himself or someone he may appoint as assistant, must work with the specialists just as the county agent leaders do with the county agents, in helping the specialists get a clear vision of their work, and thus bring the specialists to a realization that their function is one of generalship instead of that of simply a lieutenant or captain, or simply a technologist.

If our extension specialists are to function more efficiently; if they are to function as generals instead of privates; if they are to have knowledge of the situation in every section of the entire State as regards their respective subjects, is it not clear that they must have some regular and orderly means of acquainting themselves systematically with agricul-

tural conditions in every part of the State? Part of this information they can acquire by travel and observation; part through reports that may come in from the various field agents; once in 10 years through the Federal census; but if the annual program of each specialist is to be made vital and helpful each year, will it not have to be based on fairly accurate information for that year?

A general who makes his plans based on data a year or two old may waste a good deal of ammunition and not get anywhere.

This need of your specialists for facts each year upon which to forecast a plan of work for the various extension agencies in the State probably means a continuance in one form or another of the annual county and State survey made by many of the States during the war. Facts are the first essential in any county or State-wide extension program. The securing, analysis and digestion of the facts as regards agriculture throughout the State would seem to be as essential for an extension director as for a general. With the facts available each one of his specialists then can marshal the data covering his special work, and outline work and plans of attack in ways that will hit the mark and command to the fullest the respect of the public.

I believe we are basing our extension work of specialists too much on what a particularly strong head of a subject-matter department may think and urge and not enough on a broad survey of the facts.

I realize the difficulties in making such a survey and particularly of tabulating and analyzing the results. However, such surveys have been taken, tabulated and analyzed within a period of 10 days by a great State like New York. The survey had universal educational value because it brought into cooperation the schools, the bankers, the accountants, the boys and girls, the farmers, the county agents, and in fact the whole extension staff, including the specialists, all headed by the farm management department and director as the final correlating agents.

I believe the plan is practical to a much greater degree than it has been tried, and is fundamental as a background for an annual extension program.

Out of this discussion I would leave on your minds the following:

(1) The program of work of our extension specialists in nearly every State is too largely a hit-and-miss one. The far-away or difficult parts of the State get too little attention, and favorite counties an unjust share of the specialists' time.

(2) The specialists should extend their subjects through every available agency. They should function through the club group and home demonstration group as well as the county agents. They should also function through farmers' institutes, State organizations and the press, as well as through the county groups.

(3) The specialists should be experts on the organization of their respective subjects, as well as authorities on subject matter.

(4) In order that subject-matter specialists may become more efficient in the organization of their work we must bring them together from time to time in sectional and national conferences, the same as in the county agent groups.

(5) The basis of an extension program should be the ascertained facts in the case.

We submit the idea of annual or biannual surveys by the extension agencies cooperating with farm bureaus and the school system, under the general correlating guidance of the farm management department and director's staff, as a basis for a state-wide annual extension program hitting on all six cylinders.

###

11. 0
54
CHARIBEL R. BARNETT

DEPT LIBRARY

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.

CLASSIFICATION KEY

10. FIELD CROPS

To be used as a basis of classification of material on
field crops for the Extension Service Handbook and
will be printed and issued as an appendix.

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
26. ECONOMICS AND MANAGEMENT IN HOME
27. FOODS AND NUTRITION
28. HOUSING, EQUIPMENT, and FURNISHING
29. TEXTILES AND CLOTHING

APPENDIX - Master classification key.

CHAPTER I	1
CHAPTER II	2
CHAPTER III	3
CHAPTER IV	4
CHAPTER V	5
CHAPTER VI	6
CHAPTER VII	7
CHAPTER VIII	8
CHAPTER IX	9
CHAPTER X	10
CHAPTER XI	11
CHAPTER XII	12
CHAPTER XIII	13
CHAPTER XIV	14
CHAPTER XV	15
CHAPTER XVI	16
CHAPTER XVII	17
CHAPTER XVIII	18
CHAPTER XIX	19
CHAPTER XX	20
CHAPTER XXI	21
CHAPTER XXII	22
CHAPTER XXIII	23
CHAPTER XXIV	24
CHAPTER XXV	25
CHAPTER XXVI	26
CHAPTER XXVII	27
CHAPTER XXVIII	28
CHAPTER XXIX	29
CHAPTER XXX	30
CHAPTER XXXI	31
CHAPTER XXXII	32
CHAPTER XXXIII	33
CHAPTER XXXIV	34
CHAPTER XXXV	35
CHAPTER XXXVI	36
CHAPTER XXXVII	37
CHAPTER XXXVIII	38
CHAPTER XXXIX	39
CHAPTER XL	40
CHAPTER XLI	41
CHAPTER XLII	42
CHAPTER XLIII	43
CHAPTER XLIV	44
CHAPTER XLV	45
CHAPTER XLVI	46
CHAPTER XLVII	47
CHAPTER XLVIII	48
CHAPTER XLIX	49
CHAPTER L	50
CHAPTER LI	51
CHAPTER LII	52
CHAPTER LIII	53
CHAPTER LIV	54
CHAPTER LV	55
CHAPTER LVI	56
CHAPTER LVII	57
CHAPTER LVIII	58
CHAPTER LIX	59
CHAPTER LX	60
CHAPTER LXI	61
CHAPTER LXII	62
CHAPTER LXIII	63
CHAPTER LXIV	64
CHAPTER LXV	65
CHAPTER LXVI	66
CHAPTER LXVII	67
CHAPTER LXVIII	68
CHAPTER LXIX	69
CHAPTER LXX	70
CHAPTER LXXI	71
CHAPTER LXXII	72
CHAPTER LXXIII	73
CHAPTER LXXIV	74
CHAPTER LXXV	75
CHAPTER LXXVI	76
CHAPTER LXXVII	77
CHAPTER LXXVIII	78
CHAPTER LXXIX	79
CHAPTER LXXX	80
CHAPTER LXXXI	81
CHAPTER LXXXII	82
CHAPTER LXXXIII	83
CHAPTER LXXXIV	84
CHAPTER LXXXV	85
CHAPTER LXXXVI	86
CHAPTER LXXXVII	87
CHAPTER LXXXVIII	88
CHAPTER LXXXIX	89
CHAPTER LXXXX	90
CHAPTER LXXXXI	91
CHAPTER LXXXXII	92
CHAPTER LXXXXIII	93
CHAPTER LXXXXIV	94
CHAPTER LXXXXV	95
CHAPTER LXXXXVI	96
CHAPTER LXXXXVII	97
CHAPTER LXXXXVIII	98
CHAPTER LXXXXIX	99
CHAPTER LXXXXX	100

10. Field crops

.0 General

.01 History

.010 General

.011 Europe

.0111 Prehistoric

.0112 Ancient

.0113 Mediaeval

.0114 Modern

.0115 Recent

.0119 Miscellaneous

.012 Asia

.013 Africa

.014 Australasia

.015 Polynesia

.016 Central America

.017 North America

.0171 Aboriginal

.0172 Colonial

.0173 Post-Colonial

.0174 Post-Civil-War

.0175 Recent (20th century)

.0179 Miscellaneous

.018 South America

.019 Miscellaneous

.02 Distribution

.020 General

THE
FEDERAL BUREAU OF INVESTIGATION
UNITED STATES DEPARTMENT OF JUSTICE
WASHINGTON, D. C. 20535

MEMORANDUM FOR THE DIRECTOR

SUBJECT: [Illegible]

1. [Illegible]

2. [Illegible]

3. [Illegible]

4. [Illegible]

5. [Illegible]

6. [Illegible]

7. [Illegible]

8. [Illegible]

9. [Illegible]

10. [Illegible]

11. [Illegible]

12. [Illegible]

13. [Illegible]

14. [Illegible]

15. [Illegible]

16. [Illegible]

17. [Illegible]

18. [Illegible]

19. [Illegible]

20. [Illegible]

21. [Illegible]

22. [Illegible]

23. [Illegible]

24. [Illegible]

25. [Illegible]

26. [Illegible]

27. [Illegible]

28. [Illegible]

29. [Illegible]

30. [Illegible]

31. [Illegible]

32. [Illegible]

33. [Illegible]

34. [Illegible]

35. [Illegible]

36. [Illegible]

37. [Illegible]

38. [Illegible]

39. [Illegible]

40. [Illegible]

41. [Illegible]

42. [Illegible]

43. [Illegible]

44. [Illegible]

45. [Illegible]

46. [Illegible]

47. [Illegible]

48. [Illegible]

49. [Illegible]

50. [Illegible]

51. [Illegible]

52. [Illegible]

53. [Illegible]

54. [Illegible]

55. [Illegible]

56. [Illegible]

57. [Illegible]

58. [Illegible]

59. [Illegible]

60. [Illegible]

61. [Illegible]

62. [Illegible]

63. [Illegible]

64. [Illegible]

65. [Illegible]

66. [Illegible]

67. [Illegible]

68. [Illegible]

69. [Illegible]

70. [Illegible]

71. [Illegible]

72. [Illegible]

73. [Illegible]

74. [Illegible]

75. [Illegible]

76. [Illegible]

77. [Illegible]

78. [Illegible]

79. [Illegible]

80. [Illegible]

81. [Illegible]

82. [Illegible]

83. [Illegible]

84. [Illegible]

85. [Illegible]

86. [Illegible]

87. [Illegible]

88. [Illegible]

89. [Illegible]

90. [Illegible]

91. [Illegible]

92. [Illegible]

93. [Illegible]

94. [Illegible]

95. [Illegible]

96. [Illegible]

97. [Illegible]

98. [Illegible]

99. [Illegible]

100. [Illegible]

.021 Statistics

.022 Geography

.0221 Europe

.0222 Asia

.0223 Africa

.0224 Australasia

.0225 Polynesia

.0226 Central America

.0227 North America

.0228 South America

.0229 Miscellaneous

.023 Ecology

.0231 Climatic

.02311 Altitude

.02312 Cloudiness

.02313 Evaporation

.02314 Precipitation

.02315 Temperature

.02316 Wind

.02319 Miscellaneous

.0232 Edaphic (Soil)

.02321 Biology

.02322 Composition

.02323 Moisture

.02324 Structure

.02329 Miscellaneous

1911

1912

1913

1914

1915

1916

1917

1918

1919

1920

1921

1922

1923

1924

1925

1926

1927

1928

1929

1930

1931

1932

1933

1934

1935

.0233 Economic:

- .02331 Crop competition
- .02332 Market location
- .02333 Transportation difficulty
- .02334 Labor problem
- .02339 Miscellaneous

.0239 Miscellaneous

.029 Miscellaneous

.03 Classification (botanical)

.030 General

.031 Systems

.0311 By relationship

.0312 By use

.0319 Miscellaneous

.032 Nomenclature

.033 Keys

.034 Descriptions

.039 Miscellaneous

.04 Culture

.040 General

.041 Propagation

.0411 Material

.04111 Seed

.04112 Fruit

.04113 Stems

.041131 Bulbs and bulblets

.041132 Cuttings

.041133 Rootstocks

.041134 Stems

- .041135 Tubers
- .041139 Miscellaneous
- .04114 Roots
- .04119 Miscellaneous
- .0412 Methods
 - .04121 Seedage
 - .04122 Plantage
 - .04129 Miscellaneous
- .0419 Miscellaneous
- .042 Tillage
 - .0421 Plowing
 - .04211 Disk
 - .04212 Listing
 - .04213 Moldboard
 - .04214 Subsoiling
 - .04219 Miscellaneous
 - .0422 Harrowing
 - .04221 Disk
 - .04222 Spike-tooth
 - .04223 Spring-tooth
 - .04229 Miscellaneous
 - .0423 Firming
 - .04231 Disking
 - .04232 Floating
 - .04233 Rolling
 - .04239 Miscellaneous
 - .0424 Cultivating
 - .04241 Harrowing
 - .04242 Lister

1. 1914

2. 1915

3. 1916

4. 1917

5. 1918

6. 1919

7. 1920

8. 1921

9. 1922

10. 1923

11. 1924

12. 1925

13. 1926

14. 1927

15. 1928

16. 1929

17. 1930

18. 1931

19. 1932

20. 1933

21. 1934

22. 1935

23. 1936

24. 1937

25. 1938

26. 1939

27. 1940

28. 1941

29. 1942

- .04243 Shovel cultivator
- .04249 Miscellaneous
- .0425 Bare fallowing
 - .04251 Plowing
 - .04252 Cultivating
 - .042521 To control weeds
 - .042522 To control soil blowing
 - .042529 Miscellaneous
 - .04259 Miscellaneous
- .0429 Miscellaneous
- .043 Fertilizers and amendments
 - .0431 Barnyard manure
 - .0432 Green manure
 - .0433 Commercial fertilizers
 - .04331 Lime
 - .04332 Nitrogen
 - .04333 Phosphorus
 - .04334 Potash
 - .04335 Sulfur
 - .04336 Mixed
 - .04339 Miscellaneous
 - .0439 Miscellaneous
- .044 Crop pruning
 - .0441 Grazing (to retard growth)
 - .0442 Mowing (to retard growth)
 - .0443 Pruning
 - .0444 Topping

- .0445 Desuckering
- .0449 Miscellaneous
- .045 Crop protection
 - .0451 Climatic factors
 - .04511 Cold
 - .045111 Frost
 - .045112 Winter cold
 - .045119 Miscellaneous
 - .04512 Hail
 - .04513 Heat
 - .04514 Wind
 - .04519 Miscellaneous
 - .0452 Biologic factors
 - .04521 Animals
 - .04522 Birds
 - .04523 Fungi
 - .04524 Insects
 - .04525 Nematodes
 - .04526 Weeds
 - .04529 Miscellaneous
 - .0459 Miscellaneous
- .046 Harvest and storage
 - .0461 Harvest
 - .04611 Methods
 - .04612 Machinery
 - .04619 Miscellaneous
 - .0462 Curing

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the topic and the objectives of the research.

2. The second part of the report is a detailed description of the methodology used in the study. It includes information about the sample size, the data collection methods, and the statistical analysis techniques.

3. The third part of the report presents the results of the study. It includes a summary of the findings and a discussion of their implications.

4. The fourth part of the report is a conclusion and a list of references. The conclusion summarizes the main findings of the study and provides recommendations for future research. The references list the sources of information used in the study.

5. The fifth part of the report is an appendix containing additional information related to the study. This may include raw data, detailed calculations, or other supporting materials.

- .0463 Obtaining product
- .0464 Storing product
- .0469 Miscellaneous
- .047 Rotation
 - .0471 System
 - .0472 Continuous cropping
 - .0473 Intercropping
 - .0474 Summer-fallowing
 - .0479 Miscellaneous
- .049 Miscellaneous
- .05 Utilization of crop
 - .050 General
 - .051 Principal products
 - .052 By-products
 - .059 Miscellaneous
- .06 Preparation for market
 - .060 General
 - .061 Baling
 - .062 Cleaning
 - .063 Drying
 - .064 Retting
 - .069 Miscellaneous
- .07 Improvement
 - .070 General
 - .071 Mass selection
 - .072 Pure-line selection
 - .0721 Clonal

1. Introduction

2. Background

3. Methodology

4. Results

5. Discussion

6. Conclusion

7. References

8. Appendix

9. Acknowledgements

10. Notes

11. Bibliography

12.

13. Summary

14. Abstract

15. Keywords

16. Introduction

17. Background

18. Methodology

19. Results

20. Discussion

21. Conclusion

22. References

23. Appendix

24. Acknowledgements

25. Notes

26. Bibliography

27.

.0722 Seminal

.0729 Miscellaneous

.073 Hybridization

.0731 Simple

.0732 Multiple

.0739 Miscellaneous

.079 Miscellaneous

.08 Regulatory work

.080 General

.081 Classes and grades

.082 Inspection

.083 Quarantine

.084 Seed

.085 Warehouse

.086 Weeds

.089 Miscellaneous

.09 Miscellaneous

.099 Bibliography of literature on field crops

.1 Alkaloidal and other drug crops

.10 General

.11 Yaupon

.12 Coffee

.13 Ginseng

.14 Goldenseal

.15 Hop

.16 Mint

.17 Tea

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

1001

- .18 Tobacco
- .19 Miscellaneous
 - .191 Belladonna
 - .192 Henbane
- .2 Cereal Crops
 - .20 General
 - .21 Barley
 - .22 Buckwheat
 - .23 Corn
 - .24 Grain sorghums
 - .25 Oats
 - .26 Rice
 - .27 Rye
 - .28 Wheat
 - .29 Miscellaneous
 - .291 Adlay
 - .292 Einkorn
 - .293 Emmer
 - .294 Millets
 - .2941 Italian or foxtail (*Chaetochloa*)
 - .2942 African or korakan (*Eleusine*)
 - .2943 Broomcorn millet, proso, or hog millet
(*Panicum miliaceum*)
 - .2944 Pearl millet or penicillaria (*Pennisetum*)
 - .2945 Ragi or finger millet (*Panicum frumentaceum*)
 - .295 Quinoa (*Chenopodium quinoa*)
 - .296 Spelt

.297 Teff (*Eragrostis abyssinica*)

.298 Wildrice (*Zizania*)

.3 Fiber and textile crops

.30 General

.31 Abaca

.32 Broomcorn

.33 Cotton

.34 Fiber flax

.35 Hemp

.36 Henequen

.37 Ramie

.38 Sisal

.39 Miscellaneous

.4 Forage crops

.40 General

.41 Grasses

.410 General

.411 Bermuda grass

.412 Johnson grass

.413 Kentucky bluegrass

.414 Orchard grass

.415 Redtop

.416 Sudan grass

.417 Timothy

.418 Wild or native grasses

.419 Miscellaneous

.42 Legumes

.420 General

.421 Alfalfa

.422 Clover, red

.423 Clover (other than red)

.4231 Alsike

.4232 Bur

.4233 Crimson

.4234 Mammoth

.4235 White

.4239 Miscellaneous

.424 Cowpea

.425 Field peas

.426 Japanese bushclover (lespedeza)

.427 Sweetclover (melilot)

.4271 Annual white (Melilotus alba var. annua)

.4272 Annual yellow (Melilotus indica)

.4273 Biennial white (Melilotus alba)

.4274 Biennial yellow (Melilotus officinalis)

.4279 Miscellaneous

.428 Soybean

.429 Miscellaneous

.4291 Peanut

.4292 Velvetbean

.4293 Vetch

.43 Millets

.430 General

- .431 Japanese or barnyard
- .432 Italian or foxtail
 - .4321 Common
 - .4322 German
 - .4323 Hungarian
 - .4324 Kursk
 - .4325 Siberian
 - .4329 Miscellaneous
- .433 Pearl millet or penicillaria
- .434 Broomcorn millet, proso, or hog millet
- .435 Ragi or finger millet
- .439 Miscellaneous
- .44 Meadows
- .45 Pastures
 - .450 General
 - .451 Kinds
 - .4511 Permanent
 - .4512 Rotation or short-lay
 - .4513 Temporary
 - .4514 Tame
 - .4515 Wild
 - .4519 Miscellaneous
 - .452 Regions
 - .4521 Northern humid
 - .4522 Pacific humid
 - .4523 Southern humid
 - .4524 Western range

.4529 Miscellaneous

.459 Miscellaneous

.46 Root crops

.460 General

.461 Artichoke

.462 Carrot

.463 Mangel

.464 Turnip

.469 Miscellaneous

.47 Sorghum

.470 General

.471 Durra or "gyp-corn"

.472 Feterita

.473 Hegari

.474 Kafir

.475 Kaoliang

.476 Milo

.477 Shallu

.478 Sorgho

.479 Miscellaneous

.48 Sunflower

.49 Miscellaneous

.5 Oil crops

.50 General

.51 Banana

.52 Castor-bean

.53 Coconut

- .54 Corn (see .2)
- .55 Cotton (see .3)
- .56 Flax (see .2)
- .57 Peanut (see .4)
- .58 Soybean (see .4)
- .59 Miscellaneous
- .6 Root and tuber crops (see 12.31 and 10.4)
 - .60 General
 - .61 Artichoke
 - .62 Beet
 - .63 Carrot
 - .64 Mangel
 - .65 Potato
 - .66 Rutabaga
 - .67 Sweetpotato
 - .68 Turnip
 - .69 Miscellaneous
- .7 Rubber crops
 - .70 General
 - .71 Apocynaceae
 - .72 Euphorbiaceae
 - .73 Guayule
 - .74 Urticaceae
 - .79 Miscellaneous
- .8 Sugar and sirup crops
 - .80 General

- .81 Corn
 - .82 Sorgho (sweet sorghum)
 - .83 Sugar beet
 - .84 Sugarcane
 - .85 Sugar maple
 - .86 Sugar palm
 - .89 Miscellaneous
- .9 Miscellaneous

ASB
CHARIBEL K. BARNETT

LIBRARY

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

11. FORESTRY.

To be used as a basis of classification of material on
forestry for the Extension Service Handbook and
will be printed and issued as an appendix.

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING, EQUIPMENT, and FURNISHING
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - Master classification key

11. FORESTRY*

- .0 General (Material covering entire subject or several branches not classified elsewhere)
 - .02 Manuals of forestry, general treatises, essays, addresses, etc.
 - .03 Dictionaries, encyclopedias, yearbooks, almanacs, calendars, etc.
 - .04 Biographies
 - .05 Forestry periodicals, lumber, and trade journals
 - .06 Proceedings and reports of societies, associations, commissions, conventions, federal, State, provincial and municipal forest officers, etc.
 - .07 Forest research
 - .071 Forest experiment stations
 - .072 Research methods
 - .08 Forest education (see also .8713 and .8724)
 - .081 Forest schools
 - .082 Arbor day
 - .083 Nature study and general propaganda
 - .09 History and status of forestry (see also .87)
 - .091 United States (alphabetically by States)
 - .092 Canada (alphabetically by provinces)
 - .093 Foreign countries (alphabetically by countries)
- .1 Forest botany
 - .10 General
 - .11 Dendrology

- .110 General
- .111 Anatomy and morphology (including cytology and histology)
- .112 Physiology
- .113 Taxonomy
- .119 Miscellaneous
- .12 Forest ecology
 - .120 General
 - .121 Biological dendrology (Reaction of individual trees to environmental factors)
 - .1211 Site factors
 - .12111 Light
 - .12112 Temperature
 - .12113 Precipitation
 - .12114 Humidity
 - .12115 Soils-general
 - .121151 Soil physics
 - .121152 Soil chemistry
 - .121153 Soil biology
 - .1211531 Bacteria
 - .1211532 Mycorrhiza
 - .12116 Water relations (Transpiration in relation to humidity, soil, water, and temperature)
 - .12117 Measurement of site factors
 - .1212 Seed production
 - .1213 Germination
 - .1214 Growth

- .12141 Habitus (Tree forms)
- .12142 Sprouting capacity
- .12143 Root development
- .1215 Acclimatization and adaptation
- .1216 Phenology
- .1217 Distribution (Geographical)
- .1218 Silvical characteristics (General descriptions
alphabetically by species)
- .122 Silvics (The reaction of tree aggregates to environ-
mental factors)
 - .1221 Forest geography and forest descriptions (al-
phabetically by States, provinces, regions,
or forest types)
 - .12211 Climate as influencing vegetation forms
 - .1222 Forest types and site qualities
 - .12221 Basis of classification
 - .12222 Origin and development (Migration,
invasion, and establishment)
 - .12223 Succession
 - .12224 Alternation and zonation
 - .12225 Methods of study and mapping
- .129 Miscellaneous
- .13 Regional floras and plant description
- .14 Accessory forest vegetation
 - .140 General
 - .141 Cryptogams
 - .142 Phanerogams
 - .149 Miscellaneous
- .19 Miscellaneous
- .2 Silviculture

- .20 General
- .21 Silvicultural systems of natural reproduction
 - .210 General
 - .211 Clearcutting
 - .2111 Strips
 - .2112 Groups
 - .212 Seed-tree method
 - .213 Selection method
 - .214 Shelterwood
 - .215 Coppice
 - .216 Coppice with standards
 - .219 Miscellaneous
- .22 Intermediate cuttings
 - .220 General
 - .221 Improvement cuttings
 - .222 Cleanings
 - .2221 Cleanings by animals
 - .223 Liberation cuttings
 - .224 Thinnings
 - .225 Salvage cuttings
 - .226 Pruning
 - .229 Miscellaneous
- .23 Marking
- .24 Brush disposal
 - .240 General
 - .241 Piling

- .242 Top lopping and scattering
- .243 Burning
- .249 Miscellaneous
- .25 Forestation
 - .250 General
 - .251 Seed
 - .2511 Seed production and source
 - .2512 Collection
 - .2513 Extracting and cleaning
 - .2514 Testing
 - .2515 Storage
 - .2516 Treatment
 - .252 Direct seeding
 - .2521 Methods
 - .2522 Protection
 - .2523 Results
 - .253 Nursery practice
 - .2531 Sowing
 - .2532 Fertilizing
 - .2533 Shading
 - .2534 Irrigation, cultivation, and weeding
 - .2535 Transplanting
 - .2536 Control of growth
 - .2537 Temporary storage of stock
- .254 Planting
 - .2541 Kinds and classes of plant material
 - .2542 Methods

- .2543 Sites and effect of cover
- .2544 Care and protection of plantations
- .2545 For investment
- .2546 For windbreaks and shelterbelts
- .2547 For watershed protection (See also .87112)
- .2548 Shade and ornamental trees, hedges, willow holtz, etc.
- .255 Costs and cost keeping
- .256 Tools and equipment
- .257 Underplanting
- .258 Tree introduction
 - .2581 Introduction of exotics
 - .2582 Extension of range of native species
- .259 Tree breeding
- .29 Miscellaneous
- .3 Forest protection
 - .30 General
 - .31 Fire (See also .861)
 - .310 General
 - .311 Prevention
 - .312 Detection
 - .3121 Airplane patrol
 - .313 Suppression
 - .319 Miscellaneous
 - .32 Animals

- .320 General
- .321 Grazing animals (See also .91)
- .322 Rodents
- .323 Birds
- .329 Miscellaneous
- .33 Tree diseases
- .34 Insects
- .35 Injurious plants
- .36 Climatic injuries
 - .360 General
 - .361 Wind
 - .362 Snow
 - .363 Hail
 - .364 Frost
 - .365 Lightning
 - .366 Sun-scald
 - .367 Floods
 - .368 Erosion (Including shifting sand)
 - .369 Avalanches
- .37 Mechanical injuries
 - .370 General
 - .371 Logging
 - .372 Guy wires, climbers, etc
 - .373 Electricity
 - .379 Miscellaneous
- .38 Chemical injuries

- .380 General
- .381 Gases and smelter fumes
- .382 Smoke
- .389 Miscellaneous
- .39 Trespass
- .4 Lumbering. Utilization of major forest products
 - .40 General
 - .41 Logging; logging engineering
 - .410 General
 - .411 Log making
 - .4111 Felling
 - .4112 Limbing
 - .4113 Bucking
 - .412 Transportation of logs
 - .4121 Animal
 - .41211 Ground skidding, snaking, and bunching
 - .41212 Wheeling
 - .41213 Trucking
 - .41214 Sled hauling
 - .41215 Trail chuting and trail sliding
 - .4122 Steam, electricity, or gas
 - .41221 Power skidding and aerial tramways
 - .41222 Logging railroads
 - .41223 Tractors
 - .4123 Water
 - .41231 Rafting
 - .41232 Driving

- .41233 Fluming and sluicing
- .41234 Barging
- .4124 Gravity chutes and timber slides
- .4125 Hand logging
- .413 Logging equipment and depreciation
- .414 Log grades
- .415 Logging costs
- .416 Logging administration
- .417 Camp management
 - .4171 Camp equipment
 - .4172 Commissary and dietary
 - .4173 Camp sanitation
 - .4174 First aid and medical data
 - .4175 Veterinary data
- .419 Miscellaneous
- .42 Lumber manufacture
 - .420 General
 - .421 Manufacturing plant
 - .4211 Log storage
 - .42111 Water storage
 - .42112 Land storage
 - .4212 Sawmill equipment
 - .4213 Conveyor system
 - .4214 Power plant
 - .4215 Yards
 - .4216 Dry sheds
 - .4217 Dry kilns

- .422 Milling
 - .4221 Sawing
 - .4222 Resawing
 - .4223 Edging
 - .4224 Trimming
 - .4225 Piling and stacking
- .423 Remanufacture of lumber
- .424 Other sawmill products; milling by-products
 - .4241 Sash and doors
 - .4242 Lath
 - .4243 Shingles
 - .4244 Flooring
 - .4245 Sawdust
 - .4246 Wood fuel
- .425 Disposal of mill refuse
- .426 Lumber grades and inspection
- .427 Manufacturing administration
- .429 Miscellaneous
- .43 Special products (Principally rough wood products, in part from sawmills)
 - .430 General
 - .431 Poles
 - .432 Piling
 - .433 Logs
 - .434 Cross ties
 - .435 Posts

- .436 Pulpwood
- .437 Mine timbers
- .438 Shakes
- .439 Miscellaneous
- .44 Wood-using industries. Uses of woods (For pulp and paper and wood distillation see also .522 and .523)
 - .440 General
 - .441 Box and crate
 - .442 Cooperage
 - .443 Furniture
 - .444 Vehicle and implement
 - .445 Veneer, plywood, and glue
 - .446 Ship and boat-building
 - .447 Shingle
 - .448 Airplane
 - .449 Miscellaneous (Alphabetically by industries)
- .45 Merchandizing or marketing of products
 - .450 General
 - .451 Methods of selling
 - .452 Transportation; freight rates
 - .453 Distribution and markets
 - .454 Shipping weights
 - .459 Miscellaneous
- .46 Lumbering accounting
 - .460 General
 - .461 Milling costs
 - .462 Selling costs

- .463 Lumber prices
- .469 Miscellaneous
- .47 Timber and lumber-trade associations
- .49 Miscellaneous
- .5 Forest technology
 - .50 General
 - .51 Wood technology
 - .510 General
 - .511 Timber physics
 - .5111 Wood structure and identification
 - .5112 Physical properties of wood
 - .5113 Mechanical properties; timber mechanics;
timber testing
 - .512 Wood chemistry
 - .513 Conditioning of wood
 - .5131 Air seasoning
 - .5132 Kiln drying
 - .514 Wood preservation
 - .5141 Preservatives
 - .5142 Methods and costs
 - .5143 Treating plants and apparatus
 - .5144 Fireproofing
 - .515 Fuel value of wood
 - .516 Wood substitutes
 - .519 Properties and uses of individual woods, foreign
and domestic (By genera and species)
 - .52 Forest by-products; derived products
 - .520 General

- .521 Naval stores; turpentine orcharding
 - .5211 Distillation of crude turpentine
 - .5212 Methods and costs
 - .5213 Possibilities of various species
 - .5214 Effect on timber
 - .5215 Markets
- .522 Wood pulp and paper
- .523 Wood distillation
- .524 Tanning materials
- .525 Sugar
- .526 Rubber and gums
- .527 Dyestuffs
- .528 Cork
- .529 Miscellaneous
- .59 Miscellaneous
- .6 Forest engineering
 - .60 General
 - .61 Surveying
 - .610 General
 - .611 Land surveying
 - .612 Topographic surveying
 - .619 Miscellaneous
 - .62 Mapping
 - .620 General
 - .621 Airplane mapping
 - .629 Miscellaneous
 - .63 Construction engineering; forest improvements

- .630 General
- .631 Roads
- .632 Trails
- .633 Bridges
- .634 Buildings
- .635 Fences
- .636 Telephones and telephone lines
- .637 Heliographs
- .638 Lookout towers and special protective works
- .639 Miscellaneous
- .64 Hydraulic engineering (Including reservoirs, dams,
and conduits)
 - .640 General
 - .641 Irrigation
 - .642 Domestic water development
 - .649 Miscellaneous
- .65 Hydroelectrical engineering
- .69 Miscellaneous
- .7 Forest management
 - .70 General
 - .71 Forest mensuration
 - .710 General
 - .711 Measurement of logs
 - .7112 Board measure; log rules; scaling
 - .7112 Cubic measure
 - .712 Measurement of lumber

- .713 Measurement of other forest products
- .714 Measurement of felled trees
- .715 Measurement of standing trees
 - .7151 Diameter
 - .7152 Height
 - .7153 Volume tables (Alphabetically by species)
 - .7154 Taper tables (Alphabetically by species)
 - .7155 Form factors (Alphabetically by species)
- .716 Determination of contents of stands
 - .7161 Measurement of all trees
 - .7162 Use of sample trees
 - .7163 Use of sample plots
 - .7164 Ocular estimation
- .717 Growth of timber
 - .7171 Determination of age
 - .7172 Diameter growth
 - .7173 Height growth
 - .7174 Volume growth or increment
 - .7175 Growth of stands and yield
 - .71751 Yield tables
 - .71752 Permanent sample plots
- .719 Miscellaneous
- .72 Forest finance
 - 720 General
 - .721 Forest valuation; determination of forest values
 - .7211 Economic and mathematical principles

- .7212 Investments and costs in forest production
- .7213 Valuation of forest soil; land values
- .7214 Valuation of growing stock or timber
- .7215 Valuation of entire forests
- .7216 Stumpage values and appraisals
- .7217 Appraisal of damages
- .722 Forest statistics; comparison of forest values
 - .7221 Determination of profits in forestry
 - .7222 Determination of forest percentage
 - .7223 Financial test of methods of treatment
 - .7224 Comparison of forest with agricultural values
- .723 Timber risks and insurance
- .724 Timber bonds
- .725 Forest taxation
- .729 Miscellaneous
- .73 Forest organization; forest regulation
 - .730 General
 - .731 Fundamental premises and principles
 - .7311 The increment
 - .7312 The rotation
 - .7313 The cutting cycle
 - .7314 The normal forest
 - .732 Forest working plans
 - .7321 Forest survey; timber survey; forest reconnaissance; collection of data
 - .7322 Determination of methods of treatment

- .7323 Regulation of yield; determination of felling budget
- .7324 Control and revision of working plans; working-plan control
- .7325 Forest working plans for special areas
- .739 Miscellaneous
- .74 Forest administration
 - .740 General
 - .741 Personnel and organization of forest staff
 - .7411 Federal
 - .7412 State
 - .7413 Municipal
 - .7414 Private
 - .742 Forest business practice, forest accounting
 - .7421 Federal
 - .7422 State
 - .7423 Municipal
 - .7424 Private
 - .743 Forest equipment (Includes all general equipment; for special technical equipment see specific captions)
 - .749 Miscellaneous
- .75 Farm and woodland forestry; wood fuel reserves
- .79 Miscellaneous
- .8 Forest economics (For forest statistics see individual topics on which statistics are desired)
 - .80 General
 - .81 Forest influences
 - .810 General
 - .811 Climate

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

- .812 Soil
- .813 Water resources and streamflow
- .814 Erosion
- .815 Avalanches
- .816 Public health
- .817 Ethics and morals
- .818 Forest aesthetics
 - .8181 Forest parks
 - .8182 Shade trees and city parks
 - .8183 Shade-tree pests and diseases
 - .8184 Shade-tree care; tree surgery
- .819 Miscellaneous
- .82 Lumber and timber economics
 - .820 General
 - .821 Timber supply
 - .822 Production
 - .823 Consumption; demand for forest products
 - .824 Lumber trade
 - .829 Miscellaneous
- .83 Industrial relation of forests
 - .830 General
 - .831 Woodworking
 - .832 Agriculture
 - .833 Railroading
 - .834 Mining
 - .839 Miscellaneous

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

- .84 Forest resources, conditions, and production
 - .840 General
 - .841 United States (Alphabetically by States)
 - .842 Foreign countries (Alphabetically by countries)
 - .849 Miscellaneous
- .85 Tariff on lumber and forest products
 - .850 General
 - .851 Exports
 - .852 Imports
 - .859 Miscellaneous
- .86 Forest legislation (Alphabetically by countries and States) (For game and fish legislation see .8712)
 - .860 General
 - .861 Fire
 - .862 Tax
 - .869 Miscellaneous
- .87 Forest policy
 - .870 General
 - .871 National-forest policy
 - .8711 Utility of national forests
 - .87111 Timber-production and silvicultural policy
 - .87112 Watershed protection
 - .87113 Waterpower development
 - .87114 Public use and recreational purposes
 - .87115 Use of agricultural lands
 - .87116 Use of grazing lands and grazing policy
 - .87117 Use of mineral lands
 - .87118 Other uses

- .8712 Game and fish policy (See also .92)
- .8713 Educational policy
- .8714 Development of science by investigation and research
- .8715 Cooperation and demonstration
- .8716 Regulation of privately owned forests
- .872 State or provincial forest policies (Alphabetically by States and provinces)
 - .8721 Land policy
 - .8722 Silvicultural policy
 - .8723 Grazing policy
 - .8724 Educational policy
 - .8725 Cooperation and demonstration
 - .8726 Regulation of privately owned forests
- .873 Municipal forest policies (Alphabetically by States or provinces and municipalities)
- .874 Private forest policies (Alphabetically by States or provinces and individuals or corporations)
- .875 Foreign forest policies (Alphabetically by countries)
- .879 Miscellaneous
- .89 Miscellaneous
- .9 Miscellaneous
 - .90 General
 - .91 Grazing
 - .910 General
 - .911 Livestock industry
 - .9111 Cattle and horses
 - .91111 United States (Alphabetically by States)
 - .91112 Foreign countries (Alphabetically by countries)

- .9112 Sheep and goats
 - .91121 United States (Alphabetically by States)
 - .91122 Foreign countries (Alphabetically by countries)
- .912 Range plants (Alphabetically by species) (For arborescent species see .11)
 - .9121 Identification
 - .9122 Distribution
 - .9123 Phenology
 - .9124 Forage value
 - .9125 Poisonous plants (See also .91534)
- .913 Forage types
- .914 Systems of range allotment and control
- .915 Range management
 - .9151 Grazing working plans
 - .91511 Range reconnaissance and surveys
 - .91512 Control and revision
 - .9152 Range utilization and maintenance
 - .91521 Adaptability of range to different classes of stock
 - .91522 Seasons of grazing
 - .91523 Carrying capacity
 - .91524 Intensity of grazing
 - .91525 "Deferred and rotation" grazing
 - .9153 Range improvement
 - .91531 Natural revegetation
 - .91532 Artificial reseeding
 - .91533 Range-destroying rodents
 - .91534 Eradication of poisonous and unpalatable plants

1. *Chrysomelidae* (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

Chrysomelidae (Coleoptera)

- .9154 Range development (For engineering features see .6)
 - .91541 Drift and division fences
 - .91542 Stock watering places
 - .91543 Stock trails and driveways
 - .91544 Corrals, chutes, dipping vats, etc.
- .9155 Handling stock
 - .91551 Cattle
 - .91552 Horses
 - .91553 Sheep
 - .91554 Goats
- .9156 Breeds and breeding
 - .91561 Improvement in grade of stock
- .9157 Feeds and feeding
- .9158 Livestock enemies
 - .91581 Diseases
 - .91582 Insect pests
 - .91583 Predatory animals
- .916 Grazing influences
 - .9161 Forest growth and reproduction
 - .9162 Forest fires
 - .9163 Watershed protection
 - .91631 Erosion and streamflow
 - .91632 Landslides and avalanches
 - .91633 Water for irrigation and municipal supply
 - .9164 Soil fertility
 - .9165 Game
 - .9166 Recreational use

- .917 Range economics
 - .919 Miscellaneous
 - .92 Game and fish (See also .8712)
 - .920 General
 - .921 Studies of species (Alphabetically by species)
 - .922 Game and fish administration
 - .9221 Laws and regulations
 - .9222 Cooperation (See also .8715 and .8725)
 - .9223 Refuges
 - .923 Game and fish management
 - .9231 Game census
 - .9232 Natural enemies
 - .9233 Regulation of kill
 - .9234 Extension
 - .9235 Restocking
 - .929 Miscellaneous
 - .93 Waterpower development (See also .65)
 - .94 Mineral resources (See also .87117)
 - .95 Recreational uses (See also .87114)
 - .951 Camping and outdoor life
 - .952 Hotels and other forest recreational centers
 - .99 Bibliography of literature on forestry
-

(continued)

Journal of Management Studies, 19(1), 67-80.

• •

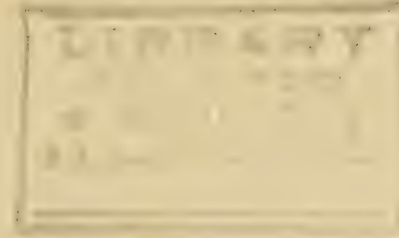
892 E
C. R. BARNETT

DEPT LIBRARY

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

12. HORTICULTURE

(To be used as a basis of classification of material on
horticulture for the Extension Service Handbook and
will be printed and issued as an appendix.)



SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
26. ECONOMICS AND MANAGEMENT IN HOME
27. FOODS AND NUTRITION
28. HOUSING, EQUIPMENT, and FURNISHING
29. TEXTILES AND CLOTHING

APPENDIX - Master classification key

12. HORTICULTURE

.0 General

.01 History

.02 Geography

.03 Climate

.1 Fruits

.10 General

.101 Location

.102 Site

.11 Pome fruits

.110 General

.111 Apple

.112 Crabs

.113 Pear

.114 Quince

.119 Miscellaneous

.12 Stone fruits

.120 General

.121 Apricot

.122 Cherry

.123 Sand cherry

.124 Noctarine

.125 Peach

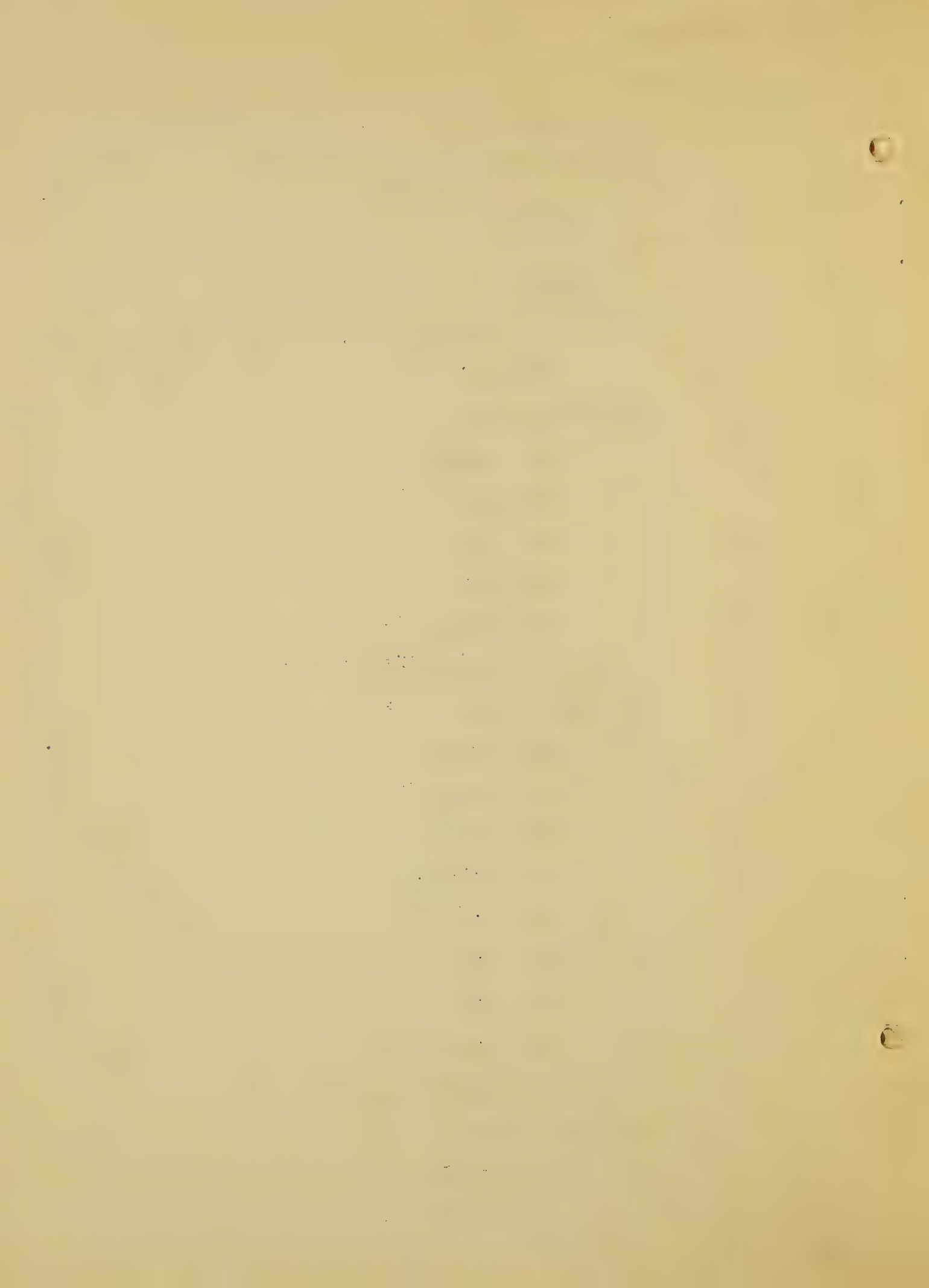
.126 Plum

.127 Plumcot

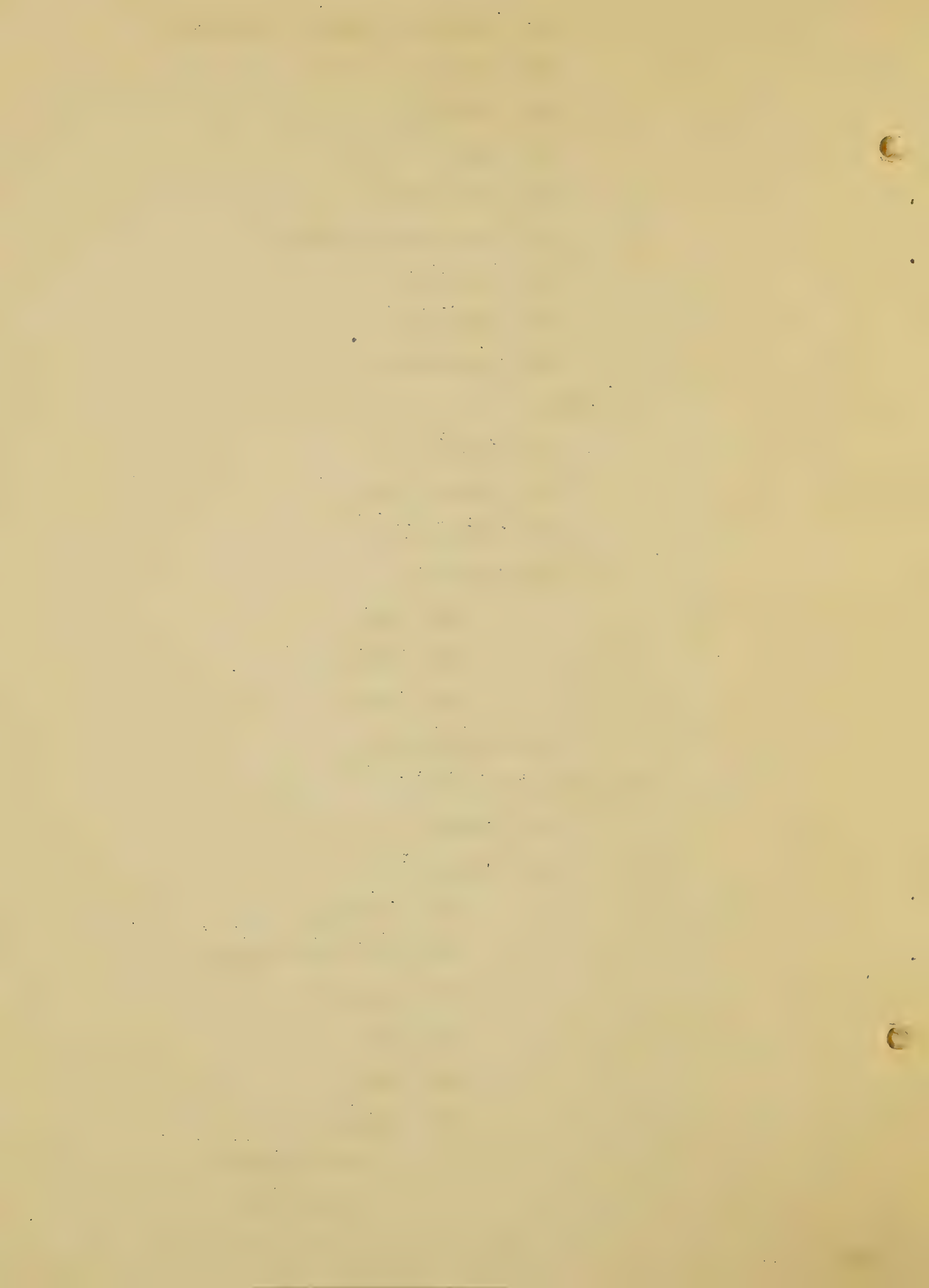
.129 Miscellaneous

.13 Small fruits

.130 General



- .131 Blackberry, dewberry, loganberry
- .132 Currant, gooseberry
- .133 Cranberry
- .134 Elder
- .135 Cranberrybush
- .136 Huckleberry, blueberry
- .137 Raspberry
- .138 Strawberry
- .139 Miscellaneous
- .14 Grapes
 - .140 General
 - .141 American bunch
 - .142 Rotundifolia
 - .143 Vinifera
 - .1431 Wine
 - .1432 Table
 - .1433 Raisin
 - .149 Miscellaneous
- .15 Subtropical fruits
 - .150 General
 - .151 Citrus
 - .1511 Citrange
 - .1512 Grapefruit, {Pomelo}
 - .1513 Kumquat
 - .1514 Lemon
 - .1515 Lime
 - .1516 Orange
 - .15161 Mandarin
 - .15162 Round



- .15163 Satsuma
- .15164 Tangerine
- .1519 Miscellaneous
 - .15191 Shaddock
 - .15192 Citron
- .152 Noncitrus
 - .1521 Avocado
 - .1522 Date
 - .1523 Fig
 - .1524 Pineapple
 - .1525 Olive
 - .1526 Persimmon (Japanese)
 - .1527 Pomegranate
 - .1529 Miscellaneous
 - .15291 Guava
 - .15292 Loquat
 - .15293 Mango
 - .15294 Papaya
- .159 Miscellaneous
- .19 Miscellaneous
 - .191 Mulberry
 - .192 Persimmon (native)
- .2 Nuts
 - .20 General
 - .201 Location
 - .202 Site
 - .21 Kinds
 - .210 General

1870

1871

1872

1873

1874

1875

1876

1877

1878

1879

1880

1881

1882

1883

1884

1885

1886

1887

1888

1889

1890

1891

1892

1893

1894

1895

1896

1897

1898

1899

- .211 Almond
- .212 Butternut
- .213 Chestnut
 - .2131 Native
 - .2132 Foreign
 - .2133 Chinquapin
- .214 Filbert (hazelnut)
- .215 Hickory
 - .2151 Shagbark
 - .2152 Shellbark
 - .2153 Mockernut
 - .2154 Pignut
- .216 Pecan
- .217 Walnut
 - .2171 Black
 - .2172 Japanese
 - .2173 Persian (English)
- .219 Miscellaneous
- .29 Miscellaneous
- .3 Vegetables
 - .30 General
 - .301 Location
 - .302 Site
 - .31 Root and tuber crops
 - .310 General
 - .311 Beet
 - .312 Carrot
 - .313 Parsnip

1. 1. 1.

2. 2. 2.

3. 3.

4. 4. 4.

5. 5. 5.

6. 6. 6.

7.

8. 8. 8.

9. 9. 9.

10. 10. 10.

11.

12. 12. 12.

13. 13. 13.

14.

15. 15. 15.

16. 16. 16.

17. 17. 17.

18. 18. 18.

19. 19. 19.

20. 20. 20.

21. 21. 21.

22. 22. 22.

23. 23. 23.

24.

- .314 Potato
- .315 Radish
- .316 Turnip
- .317 Salsify
- .318 Sweetpotato
- .319 Miscellaneous
 - .3191 Celeriac
 - .3192 Chufa
 - .3193 Dasheen
 - .3194 Jerusalem-artichoke
 - .3195 Stachys

.32 Bulbous crops

- .320 General
- .321 Chives
- .322 Welsh onion (cibol)
- .323 Garlic
- .324 Leek
- .325 Onion
- .326 Shallots
- .329 Miscellaneous

.33 Greens and salad crops

- .330 General
- .331 Celery
- .332 Dandelion
- .333 Endive
- .334 Kale
- .335 Lettuce
- .336 Mustard
- .337 Spinach

.339 Miscellaneous

.3391 New Zealand spinach

.3392 Parsley

.3393 Peppergrass

.3394 Sorrel

.3395 Swiss chard

.34 Cabbage crops

.340 General

.341 Broccoli

.342 Brussels sprouts

.343 Cabbage

.344 Cauliflower

.345 Chinese cabbages

.346 Collards

.347 Kohrabi

.349 Miscellaneous

.35 Beans and peas

.350 General

.351 Bean

.3511 Broadbean

.3512 Kidney

.35121 Field

.35122 Garden

.351221 Bush (green pod)

.351222 Bush (wax pod)

.351223 Pole (green pod)

.351224 Pole (wax pod)

.3513 Lima

- .35131 Bush
- .35132 Pole
- .3514 Yard long
- .3515 Soybean
- .3516 Scarlet runner
- .3517 Cowpea
- .3519 Miscellaneous
- .352 Pea
 - .3521 Field
 - .3522 Garden
 - .35221 Smooth
 - .35222 Wrinkled
 - .35223 Edible pod
 - .359 Miscellaneous
- .36 Vine crops
 - .360 General
 - .361 Chayote
 - .362 Citron
 - .363 Cucumber
 - .364 Gourd
 - .365 Muskmelon (cantaloupe)
 - .366 Pumpkin and squash
 - .3661 Pepo
 - .3662 Moschata
 - .3663 Maxima
 - .367 Watermelon
 - .369 Miscellaneous

.37 Other annual crops

.370 General

.371 Eggplant

.372 Okra

.373 Pepper

.374 Physalis or husk tomato

.375 Sweet corn

.376 Tomato

.379 Miscellaneous

.38 Perrenial crops

.380 General

.381 Artichokes (globe)

.382 Asparagus

.383 Horseradish

.384 Rhubarb

.385 Scakale

.389 Miscellaneous

.39 Miscellaneous

.4 Ornamentals

.40 General

.41 Trees

.410 General

.411 Deciduous

.412 Broadleaf evergreen

.413 Cone bearing

.419 Miscellaneous

.42 Shrubs

- .420 General
- .421 Deciduous
- .422 Broadleaf evergreen
- .423 Cone bearing
- .429 Miscellaneous
- .43 Vines
 - .430 General
 - .431 Deciduous
 - .432 Broadleaf evergreen
 - .433 Herbaceous
 - .439 Miscellaneous
- .44 Perennials (herbaceous)
 - .440 General
 - .441 Hardy
 - .442 Tender
 - .449 Miscellaneous
- .45 Biennials
 - .450 General
 - .451 Hardy
 - .452 Tender
 - .459 Miscellaneous
- .46 Annuals
 - .460 Miscellaneous
 - .461 Hardy
 - .462 Tender
 - .469 Miscellaneous
- .47 Bulbs

- .470 General
- .471 Hardy
- .472 Tender
- .479 Miscellaneous
- .48 Grasses
- .49 Miscellaneous
- .5 Propagation
 - .50 General
 - .501 Facilities
 - .51 Seed
 - .510 General
 - .511 Storage
 - .5111 Common
 - .5112 Cold
 - .5113 Stratification
 - .5114 Dry
 - .512 Open ground
 - .513 Beds
 - .514 Frames
 - .5141 Cold
 - .5142 Hot
 - .515 Greenhouses
 - .516 Lath houses
 - .519 Miscellaneous
 - .52 Division
 - .520 General
 - .521 Division
 - .522 Suckers

- .523 Offsets
- .524 Runners
- .525 Stolons
- .526 Scales
- .527 Slabs
- .529 Miscellaneous
- .53 Layering
 - .530 General
 - .531 Layers
 - .532 Tip
 - .533 Mound
 - .534 Pot
 - .539 Miscellaneous
- .54 Cuttings
 - .540 General
 - .541 Tuber
 - .542 Root
 - .543 Stem
 - .5431 Soft
 - .5432 Hard
 - .544 Leaf
 - .549 Miscellaneous
- .55 Graftage
 - .550 General
 - .551 Budding
 - .5511 Shield
 - .5512 Annular or ring
 - .5513 Patch



- .5514 Chip
- .552 Grafting
 - .5521 Whip
 - .5522 Cleft
 - .5523 Slipbark
 - .5524 Splice
 - .5525 Inarching
 - .5526 Bridge
 - .5527 Herbaceous
- .553 Materials
 - .5531 Stocks
 - .5532 Scions
 - .5533 Bud sticks
 - .5534 Coverings
 - .55341 Wax
 - .55342 Cloth
 - .55343 Cord
 - .55344 Raffia
 - .5535 Tools
- .559 Miscellaneous
- .59 Miscellaneous
- .6 Operations
 - .60 General
 - .61 Planning
 - .610 General
 - .611 Fruit
 - .6111 Home plantation

- .6112 Commercial plantation
- .6113 Under glass
- .612 Nut
 - .6121 Home orchard
 - .6122 Commercial orchard
- .613 Vegetable
 - .6131 Home garden
 - .6132 Market garden
 - .6133 Truck farming
 - .61331 Canning crops
 - .61332 Shipping crops
 - .6134 Forcing
- .614 Ornamental
 - .6141 Landscape
 - .61411 Home
 - .61412 School
 - .61413 Public building
 - .61414 Playground
 - .61415 Park
 - .61416 Camp
 - .61417 Street and road
 - .6142 Floriculture
 - .61421 Under glass
 - .61422 In open
- .619 Miscellaneous
- .62 Planting
 - .620 General

- .6201 Systems
- .6202 Planting table
- .621 Fruit
 - .6211 Tree
 - .6212 Small
 - .6213 Grape
- .622 Nut
- .623 Vegetable
 - .6231 Hand
 - .6232 Machine
- .624 Ornamental
 - .6241 Woody plant
 - .62411 Deciduous
 - .62412 Evergreen
 - .62413 Large tree
 - .6242 Herbaceous plant
 - .62421 Annuals
 - .62422 Perennials
 - .62423 Bulbs
 - .62424 Grass
- .629 Miscellaneous
- .63 Culture
 - .630 General
 - .631 Fruit
 - .6311 Sod
 - .6312 Mulch
 - .6313 Tillage

- .63131 Clean
- .63132 Cover crops
- .63133 Green manures
- .63134 Shade crops
- .63135 Intercrops
- .6314 Irrigation
- .632 Nut
 - .6321 Tillage
 - .63211 Clean
 - .63212 Green manure
 - .63213 Cover crops
 - .63214 Intercrops
 - .6322 Irrigation
 - .6323 Native grove
- .633 Vegetable
 - .6331 In open
 - .63311 Tillage
 - .63312 Mulch
 - .63313 Irrigation
 - .6332 Under glass
 - .63321 Tillage
 - .63322 Irrigation
 - .63323 Ventilation
- .634 Ornamental
 - .6341 In open
 - .63411 Tillage
 - .63412 Mulch

- .63413 Irrigation
- .6342 Under glass
 - .63421 Tillage
 - .63422 Irrigation
 - .63423 Ventilation
- .639 Miscellaneous
- .64 Pruning, training, and thinning
 - .641 Fruit
 - .6411 Tree
 - .6412 Small
 - .6413 Grape
 - .642 Nut
 - .643 Vegetable
 - .644 Ornamental
 - .6441 Tree
 - .6442 Shrub
 - .6443 Vine
 - .6444 Herbaceous
 - .6445 Lawns
 - .649 Miscellaneous
- .65 Crop protection
 - .650 General
 - .651 Materials
 - .6511 Sprays
 - .6512 Dusts
 - .6513 Fumigants
 - .6514 Repellents

- .6515 Poisons
- .652 Equipment
 - .6521 Sprayers
 - .6522 Dusters
 - .6523 Traps
- .653 Pest
 - .6531 Animals
 - .6532 Birds
 - .6533 Crayfish
 - .6534 Fungi
 - .6535 Insects
 - .6536 Turtles
- .654 Frost
 - .6541 Heating
 - .6542 Sprinkling
 - .6543 Covering
 - .6544 Cultural practices
 - .65441 Listing
 - .65442 Ridging
- .655 Wind
 - .6551 Windbreaks
 - .65511 Permanent
 - .65512 Temporary
 - .65513 Cultural practices
 - .655131 Listing
 - .655132 Ridging
- .656 Sun

- .6561 Shades
- .6562 Cover crops
- .6563 Sprays
- .659 Miscellaneous
- .66 Plant food and stimulants
 - .660 General
 - .661 Plant food
 - .6611 Manures
 - .66111 Farmyard
 - .66112 Special
 - .66113 Green
 - .66114 Compost
 - .6612 Nitrogen
 - .66121 Nitrate of soda
 - .66122 Sulfate of ammonia
 - .66123 Cyanamid
 - .66124 Dried blood
 - .66125 Tankage
 - .66126 Fish scrap
 - .66127 Peat
 - .6613 Phosphorous
 - .66131 Acid phosphate
 - .66132 Bone meal
 - .6614 Potash
 - .66141 Muriate
 - .66142 Kainite
 - .66143 Sulfate

.66144 Wood ashes

.662 Stimulants

.6621 Lime

.6622 Gypsum

.6623 Aluminum sulfate

.6624 Sulfur

.6625 Salt

.669 Miscellaneous

.67 Handling

.670 General

.671 Harvesting

.6711 Gathering

.6712 Grading

.6713 Packing

.67131 Container

.67132 Equipment

.67133 Pack

.672 Storage

.6721 Common

.6722 Cold

.6723 Heated

.673 Transportation

.6731 Water

.67311 Refrigerated

.6732 Rail

.67321 Freight

.67322 Express

.6733 Truck

.674 By-products

.6741 Canning

.67411 Fruit

.67412 Vegetable

.6742 Drying

.67421 Sun

.67422 Artificial

.6743 Freezing

.67431 Ice-cream stocks

.67432 Pastry stocks

.6744 Fruit juices

.6745 Jams and jellies

.6746 Marmalades and butters

.6747 Starch

.6749 Miscellaneous

.679 Miscellaneous

.69 Miscellaneous

.7 Structures

.70 General

.71 Growing

.710 General

.711 Greenhouses

.712 Hotbeds

.713 Coldframes

.714 Pits

.715 Lath or shade houses

- .719 Miscellaneous
- .72 Packing
 - .720 General
 - .721 Fruit
 - .722 Nut
 - .723 Vegetable
 - .724 Floral
 - .725 Nursery
 - .729 Miscellaneous
- .73 Storage
 - .730 General
 - .731 Common
 - .732 Cold
 - .733 Heated
 - .734 Pits
 - .735 Cellars
 - .739 Miscellaneous
- .74 Architectural
 - .740 General
 - .741 Pergolas
 - .742 Walls
 - .743 Steps
 - .744 Benches
 - .745 Arbors
 - .746 Fences
 - .747 Entrances
 - .748 Drives and walks

.749 Miscellaneous

.79 Miscellaneous

.8 Regulations

.80 General

.81 Legislation

.82 Inspection

.83 Quarantine

.89 Miscellaneous

.9 Miscellaneous

.99 Bibliography of literature on horticulture

+592 Ec

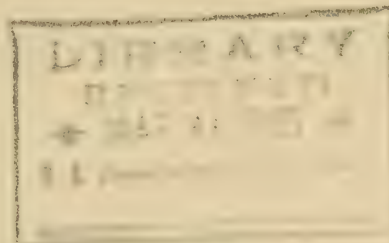
CLARIBEL R. BARNETT

DEPT LIBRARY

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

13. PLANT DISEASES

To be used as a basis of classification of material on
plant diseases for the Extension Service Handbook and
will be printed and issued as an appendix.

GRAND HOTEL, NEW YORK

Room 1234, New York, N.Y.

Room 1234, New York, N.Y.

Room 1234, New York, N.Y.

Room 1234, New York, N.Y.

Room 1234, New York, N.Y.

Room 1234, New York, N.Y.

Room 1234, New York, N.Y.

Room 1234, New York, N.Y.

Room 1234, New York, N.Y.

SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
26. ECONOMICS AND MANAGEMENT IN HOME
27. FOODS AND NUTRITION
28. HOUSING, EQUIPMENT, AND FURNISHING
29. TEXTILES AND CLOTHING

APPENDIX - Master classification key

13. Plant diseases

- .0 General
 - .01 Nature of plant diseases
 - .09 Miscellaneous
- .1 Alkaloidal and medicinal plants
 - .10 General
 - .11 Alkaloidal plants
 - .110 General
 - .111 Tobacco
 - .119 Miscellaneous
 - .12 Medicinal plants
 - .120 General
 - .121 Ginseng
 - .122 Goldenscal
 - .129 Miscellaneous
 - .19 Miscellaneous
- .2 Cereal and forage crops
 - .20 General
 - .21 Cereals
 - .210 General
 - .211 Barley
 - .212 Corn
 - .213 Oats
 - .214 Rice
 - .215 Rye
 - .216 Wheat

- .219 Miscellaneous
- .22 Forage crops
 - .220 General
 - .221 Alfalfa
 - .222 Clover
 - .223 Cowpea
 - .224 Millet
 - .225 Sorghum
 - .226 Soybean
 - .229 Miscellaneous
- .29 Miscellaneous
- .3 Fiber plants
 - .30 General
 - .31 Cotton
 - .32 Flax
 - .33 Hemp
 - .39 Miscellaneous
- .4 Forest trees, shade trees, and other ornamental plants
 - .40 General
 - .41 Forest and shade trees
 - .410 General
 - .411 Deciduous
 - .4111 Ash
 - .4112 Catalpa
 - .4113 Elm
 - .4114 Horsechestnut

- .4115 Maple
- .4116 Oak
- .4117 Planetree (sycamore)
- .4118 Poplar
- .4119 Miscellaneous
- .412 Evergreen
 - .4121 Juniper
 - .4122 Redcedar
 - .4129 Miscellaneous
- .419 Miscellaneous
- .42 Ornamental plants
 - .420 General
 - .421 Trees (see 41)
 - .422 Shrubs
 - .4221 Box
 - .4222 Hydrangea
 - .4223 Lilac
 - .4224 Rose
 - .4229 Miscellaneous
 - .423 Vines
 - .4231 Sweet pea
 - .4238 Miscellaneous
 - .424 Herbaceous perennials
 - .4241 Carnation
 - .4242 Chrysanthemum
 - .4243 Hollyhock

- .4244 Iris
- .4245 Peony
- .4246 Violet
- .4249 Miscellaneous
- .425 Biennials
- .426 Annuals
 - .4261 Aster
 - .4262 Pansy
 - .4263 Snapdragon
 - .4269 Miscellaneous
- .427 Bulbs
 - .4271 Gladiolus
 - .4279 Miscellaneous
- .429 Miscellaneous
- .49 Miscellaneous
- .5 Fruits and nuts
 - .51 Fruits
 - .510 General
 - .511 Pome fruits
 - .5111 Apple
 - .5112 Pear
 - .5113 Quince
 - .5119 Miscellaneous
 - .512 Stone fruits
 - .5121 Apricot
 - .5122 Cherry

1917

1918

1919

1920

1921

1922

1923

1924

1925

1926

1927

1928

1929

1930

1931

1932

1933

1934

1935

1936

1937

1938

1939

1940

1941

1942

- .5123 Peach
- .5124 Plum
- .5129 Miscellaneous
- .513 Small fruits
 - .5131 Blackberry
 - .5132 Currant
 - .5133 Cranberry
 - .5134 Gooseberry
 - .5135 Raspberry
 - .5136 Strawberry
 - .5139 Miscellaneous
- .514 Grapes
- .515 Subtropical fruits
 - .5151 Grapefruit
 - .5152 Lemon
 - .5153 Orange
 - .5154 Pineapple
 - .5159 Miscellaneous
- .519 Miscellaneous .
- .52 Nuts
 - .520 General
 - .521 Almond
 - .522 Chestnut
 - .523 Pecan
 - .524 Persian walnut (English)
 - .529 Miscellaneous

.59 Miscellaneous

.6 Sugar plants

.60 General

.61 Beet

.62 Maple

.63 Sugarcane

.64 Sorgo

.69 Miscellaneous

.7 Vegetables

.70 General

.71 Root and tuber crops

.710 General

.711 Beets

.712 Carrots

.713 Potato

.714 Radish

.715 Turnip

.716 Sweetpotato

.719 Miscellaneous

.72 Bulb crops

.720 General

.721 Onion

.722 Garlic

.729 Miscellaneous

.73 Greens and salad crops

.730 General

- .731 Celery
- .732 Lettuce
- .733 Spinach
- .739 Miscellaneous
- .74 Cabbage crops
 - .740 General
 - .741 Brussels sprouts
 - .742 Cabbage
 - .743 Cauliflower
 - .744 Collards
 - .749 Miscellaneous
- .75 Legumes
 - .750 General
 - .751 Bean
 - .752 Pea
 - .759 Miscellaneous
- .76 Vine crops
 - .760 General
 - .761 Chayote
 - .762 Cucumber
 - .763 Muskmelon (cantaloupe)
 - .764 Pumpkin and squash
 - .765 Watermelon
 - .769 Miscellaneous
- .77 Other annual crops
 - .770 General

- .771 Eggplant
- .772 Okra
- .773 Pepper
- .774 Sweet corn
- .775 Tomato
- .779 Miscellaneous
- .78 Perennial crops
 - .780 General
 - .781 Artichokes (globe)
 - .782 Asparagus
 - .783 Rhubarb
 - .789 Miscellaneous
- .79 Miscellaneous
- .8 Control measures
 - .80 General
 - .81 Methods
 - .810 General
 - .8101 Culture and handling methods
 - .8109 Miscellaneous
 - .811 Eradication
 - .8121 Diseased plants
 - .8122 Plant parts
 - .8123 Alternate hosts
 - .8124 Wild hosts
 - .8129 Miscellaneous
 - .813 Use of disease-resistant sorts
 - .814 Disease-free seed

- .815 Crop rotation
- .816 Disinfection of plant parts
 - .8161 Seed treatment
 - .8162 Treatment of wounds
 - .8163 Treatment of fruits
 - .8169 Miscellaneous
- .817 Soil treatment
 - .8171 Chemical
 - .8172 Heat
 - .8179 Miscellaneous
- .818 Spraying and dusting
- .819 Miscellaneous
- .82 Fungicides
 - .820 General
 - .8201 Spray and dust combinations
 - .8202 Spreaders
 - .8209 Miscellaneous
 - .821 Copper sprays and dusts
 - .8211 Ammoniacal copper carbonate
 - .8212 Bordeaux mixture, homemade
 - .8213 Bordeaux mixture, commercial
 - .8214 Burgundy mixture
 - .8215 Copper acetate
 - .8216 Copper lime dust
 - .8217 Table for comparison
 - .8218 Testing Bordeaux mixture

- .8219 Miscellaneous
- .822 Other copper preparations
 - .8221 Copper-sulfate line for cereal-seed treatment
 - .8222 Copper carbonate
 - .8229 Miscellaneous
- .823 Sulfur sprays and dusts
 - .8231 Self-boiled lime-sulfur and allied preparations
 - .82311 Dry-mix
 - .82312 Precipitated sulfurs
 - .82313 Self-boiled lime-sulfur
 - .82319 Miscellaneous
 - .8232 Sulfur dusts
 - .8233 Soluble sulfur compounds
 - .82331 Barium sulfides
 - .82332 Dry-lime sulfur
 - .82333 Lime-sulfur solution
 - .82334 Potassium sulfides
 - .82335 Sodium sulfides
 - .82339 Miscellaneous
 - .8239 Miscellaneous
- .824 Sulfur (other than spraying)
- .825 Mercuric preparations
 - .8251 Corrosive sublimate
 - .8252 Mercuric cyanide
 - .8253 Organic mercury compounds
 - .8259 Miscellaneous

- .826 Formaldehyde
- .827 Hot water
- .829 Miscellaneous
- .83 Machinery
 - .830 General
 - .831 Spraying
 - .832 Dusting
 - .833 Seed treatment
 - .834 Soil-treatment equipment
 - .839 Miscellaneous
- .89 Miscellaneous
- .9 Miscellaneous
 - .91 Bibliography of literature on plant diseases

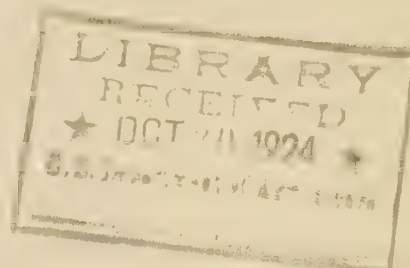
12 Ec
CLARIBEL R. BARNETT -

Library

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

14. SOILS.

To be used as a basis of classification of material on
soils for the Extension Service Handbook and
will be printed and issued as an appendix.

SUBJECT MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING, EQUIPMENT, and FURNISHING
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - Master classification key.

14. SOILS

- .0 General
- .1 Soil science
 - .10 General
 - .11 Soil genesis and morphology
 - .110 General
 - .111 Parent-material accumulation
 - .1111 Rock weathering
 - .11111 Change of temperature
 - .11112 Chemical action
 - .11113 Friction
 - .11114 Freezing and thawing
 - .1112 Sedimentation
 - .11121 Water
 - .11122 Ice
 - .11123 Air
 - .1113 Gravitational
 - .1114 Chemical precipitation
 - .1115 Organic
 - .11151 Peat
 - .11152 Muck
 - .11153 Coral reef
 - .11154 Bone
 - .11155 Shell
 - .11156 Diatomaceous earth
 - .1119 Miscellaneous
 - .112 Soil making

.1121 Climate

.11211 Rainfall

.112111 Leaching

.112112 Eluviation

.112113 Salt accumulation

.1121131 Carbonate

.1121132 Alkali

.1121133 Sesquioxide

.11212 Temperature

.112121 Oxidation

.11213 Vegetation

.112131 Grass

.112132 Brush

.112133 Timber

.11214 Topography

.112141 Flat

.112142 Steep

.11215 Moisture

.112151 Optimum

.112152 Excessive

.112153 Deficient

.113 Soil description

.1131 Color

.1132 Texture

.1133 Structure

.1134 Horizon

.1135 Thickness

.1136 Chemical composition

- .1137 Character of parent material
- .1139 Miscellaneous
- .114 Soil classification
 - .1141 Texture
 - .1142 Series
 - .1143 Province
 - .1144 Region
 - .1149 Miscellaneous
- .115 Soil geography
 - .1151 Soil surveying
 - .11511 Object
 - .11512 Method
 - .11513 Sampling
 - .115131 Method
 - .115132 Object
 - .11514 Report
 - .11515 Map
 - .11519 Miscellaneous
 - .1152 Regional description
 - .1159 Miscellaneous
- .119 Miscellaneous
- .12 Physics of soils
 - .120 General
 - .121 Texture
 - .1211 Coarse
 - .1212 Medium
 - .1213 Fine
 - .1219 Miscellaneous

.122 Physical constants

.1221 Specific gravity

.12211 Absolute

.12212 Apparent

.1222 Weight (field condition)

.1223 Color

.1224 Odor

.1225 Conductivity

.12251 Thermal

.12252 Electrical

.1226 Internal surface

.12261 Heat of wetting

.1227 Porosity

.1228 Moisture equivalent

.1229 Miscellaneous

.123 Physical composition

.1231 Inorganic constituents

.12311 Fine gravel

.12312 Coarse sand

.12313 Medium sand

.12314 Fine sand

.12315 Very fine sand

.12316 Silt

.12317 Clay

.12318 Colloids

.1232 Organic constituents

.12321 Animal debris

.12322 Compounds

.1239 Miscellaneous

.124 Soil water

.1241 Hygroscopic moisture

.12411 Size of particle

.12412 Colloids

.12413 Temperature

.12414 Organic matter

.12415 Humidity

.1242 Capillary water

.12421 Surface tension

.12422 Movement

.124221 Thickness of film

.124222 Viscosity

.124223 Texture

.124224 Organic matter

.1243 Gravitational water

.12431 Texture

.12432 Granulation

.12433 Organic matter

.12434 Viscosity

.12435 Atmospheric pressure

.12436 Shrinkage

.12437 Plant roots

.1249 Miscellaneous

.125 Soil temperature

.1251 Specific heat

.1252 Evaporation of water

.1253 Depth

.1254 Presence of water

- .1255 Absorption, radiation, conductivity
- .1256 Angle of sun's rays and slope
- .1257 Drainage
- .1258 Tillage
- .1259 Miscellaneous
- .126 Soil air
 - .1261 Composition
 - .1262 Diffusion
 - .1263 Removal of water
 - .1264 Change in atmospheric pressure
 - .1265 Temperature change
 - .1266 Tillage
 - .1267 Wind movement
 - .1269 Miscellaneous
- .129 Miscellaneous
- .13 Chemistry of soils
 - .130 General
 - .131 Chemical composition
 - .1311 Mineral elements
 - .13111 Silicon
 - .13112 Aluminum
 - .13113 Iron
 - .13114 Calcium
 - .13115 Magnesium
 - .13116 Sodium and potassium
 - .13117 Phosphorus
 - .13118 Sulphur
 - .13119 Miscellaneous

- .1312 Non mineral elements
 - .13121 Carbon
 - .13122 Nitrogen
 - .13123 Hydrogen
 - .13124 Oxygen
- .1319 Miscellaneous
- .132 Chemical processes
 - .1321 Oxidation
 - .1322 Carbonation
 - .1323 Reduction
 - .1324 Hydration
 - .1325 Solution
 - .1329 Miscellaneous
- .139 Miscellaneous
- .14 Soil biology
 - .140 General
 - .141 Macro-organisms
 - .142 Micro-organisms
 - .1421 Injurious organisms
 - .1422 Beneficial organisms
 - .1429 Miscellaneous
 - .149 Miscellaneous
- .19 Miscellaneous
- .2 Soil technology
 - .20 General
 - .21 Soil management
 - .210 General
 - .211 Control of moisture

- .2111 Drainage
- .2112 Tillage
- .2113 Irrigation
- .2119 Miscellaneous
- .212 Crop selection
- .213 Crop rotation
- .214 Soil erosion
- .215 Alkali soils
- .216 Sandy soils
- .217 Heavy clay soils
- .219 Miscellaneous
- .22 Soil fertility
 - .220 General
 - .221 Plant food elements
 - .2211 Nitrogen
 - .22111 Ammonification
 - .22112 Nitrification
 - .22113 Denitrification
 - .22114 Nitrogen fixation
 - .2212 Phosphorus
 - .2213 Potassium
 - .2214 Calcium
 - .2215 Magnesium
 - .2216 Sulphur
 - .2217 Iron
 - .2218 Aluminum
 - .2219 Miscellaneous

- .222 Crop-growth requirements
 - .2221 Organic matter
 - .22211 Green manure
 - .22212 Farmyard manure
 - .22213 Compost
 - .2222 Commercial fertilizers
 - .22221 Nitrogen
 - .222211 Organic
 - .222212 Inorganic
 - .22222 Potash
 - .22223 Phosphates
 - .22229 Miscellaneous
 - .2229 Miscellaneous
- .223 Lime
 - .2231 Materials
 - .22311 Burnt lime
 - .22312 Hydrated lime
 - .22313 Limestone
 - .22314 Marl
 - .22319 Miscellaneous
 - .2232 Lime requirements
 - .2233 Crops requiring lime
 - .2239 Miscellaneous
- .229 Miscellaneous

.9 Miscellaneous

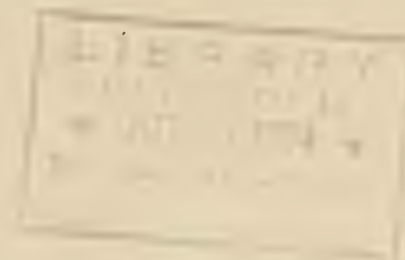
- .99 Bibliography of literature on soils.



COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

15. WEATHER

(To be used as a basis of classification of material on
weather for the Extension Service Handbook and will be
printed and issued as an appendix.)



SUBJECT-MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING AND EQUIPMENT
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - master classification key.

15. WEATHER

.0 General

.1 Weather and crops

.10 General

.11 Weather and farm work

.111 Preparation of soil

.112 Planting

.113 Cultivating

.114 Harvesting

.12 Climate and crops

.121 Adjustment of agriculture to climate

.122 Geographic distribution of crops

.123 Agricultural provinces

.13 Rainfall and types of farming

.131 Usual farming methods

.132 Dry farming

.133 Crop grazing

.134 Grazing

.135 Irrigation

.14 Temperature and crops

.141 Planting dates

.142 Germination

.143 Development and maturity

.144 Accumulated temperature

.145 Critical periods of growth

.15 Warm and cool-weather crops

.151 Grains

.152 Potatoes

.153 Tropical and subtropical plants

.154 Vegetables

.155 Fruits

.16 Critical periods of growth and weather influence

.161 Small grains

.162 Corn

.163 Cotton

.164 Potatoes

.165 Vegetables

.166 Fruit

.17 Frost hazard

.171 Frost formation

.172 Conditions favorable for frost

.173 Frost forecasts

.174 Protection from frost

.18 Damaging temperatures to fruit

.181 Hardy fruit

.182 Tender fruit

.183 Estimating frost damage to blossoms

.184 Orchard sites

.1841 Proper selection

.1842 Air drainage

.1843 Advantage of slopes

.1844 Influence of valleys and depressions

.1845 Temperature inversions

- .19 Miscellaneous
- .2 Weather forecasts
 - .20 General
 - .21 Meteorological stations
 - .211 Number and distribution
 - .212 Twice-daily observations
 - .213 Telegraphic reports
 - .214 Synoptic charts
 - .22 Weather map
 - .221 Reading the weather map
 - .222 Cyclones and anticyclones
 - .2211 Characteristics and movement
 - .2212 Seasonal distribution
 - .2213 Tropical and extra-tropical storms
 - .223 Forecasting
 - .224 Seasonal forecasts
 - .225 Local weather signs
 - .23 Forecast centers
 - .231 Areas covered
 - .24 Daily forecasts
 - .241 Time of issue
 - .242 Periods covered
 - .243 Distribution of forecasts
 - .2431 Mail
 - .2432 Telegraph and telephone
 - .2433 Radio

- .25 Semiweekly outlook
 - .251 Description
 - .252 Utilization
 - .253 Distribution
- .26 Harvest weather forecasts
 - .261 When made
 - .262 How used
 - .263 Distribution
- .27 Fruit spraying
 - .271 How used
 - .272 Distribution
- .28 Shippers forecasts
 - .281 Description
 - .282 Utilization
- .29 Miscellaneous
- .3 Special warnings
 - .30 General
 - .31 Cold waves
 - .311 Nature
 - .312 Movements
 - .313 Forecasting
 - .32 Frosts
 - .321 Forecasting
 - .322 Distribution of warnings
 - .33 Frost and alfalfa seed
 - .331 Seed maturity

- .34 Raisin drying
 - .341 Moisture damage
 - .342 Special rain warnings
- .35 Floods
 - .351 Damage to crops and livestock
 - .352 Distribution of warnings
- .36 River stages
 - .361 Forecasting for navigation
- .37 Hurricane and storm warnings
 - .371 Tropical storms
 - .372 Distribution of warnings
 - .373 High winds
- .38 Fire weather warnings (Forests)
 - .381 Conditions favorable for fires
 - .382 Distribution of warnings
- .39 Miscellaneous
- .4 Frost protection for fruit
 - .40 General
 - .41 Principles of protection
 - .411 Conserving heat
 - .412 Stirring the air
 - .413 Adding heat
 - .42 Retarding radiation
 - .421 Covering trees
 - .422 Smudging
 - .4221 Fuel
 - .423 Effectiveness of smudging

- .43 Principles of air mixing
 - .431 Air-stirring machines
 - .432 Effectiveness
- .44 Heaters
 - .441 Material and construction
 - .442 Fuel
 - .443 Number of heaters required
 - .4431 Arrangement in orchards
 - .444 Storing fuel
 - .445 Caring for heaters
 - .446 Effectiveness of heating
- .45 Effectiveness of different protective measures
 - .451 Heating
 - .452 Smudging
 - .453 Chemical smoke screens
 - .454 Coverings
 - .455 Irrigation
 - .456 Value of cover crops
- .46 Temperature surveys
 - .461 Number and location of stations
 - .462 Importance of local temperature data
 - .463 Temperature variations
 - .4631 Different portions of the same orchard
 - .4632 Near-by localities
- .49 Miscellaneous

.5 Weather and crop services

.50 General

.51 Daily cotton and grain region services

.52 Districts

.521 Number and areas covered

.53 District centers

.531 Locations

.532 Number and distribution of substations

.5321 Observations and reports

.5322 Data telegraphed

.533 Weather bulletin issued

.5331 Distribution

.534 Bulletins issued at subcenters

.54 Weekly range and cattle service

.541 Cattle region districts

.5411 Number and areas covered

.5412 District centers

.542 Data collected

.543 Bulletins issued

.5431 Distribution

.544 Summer range

.545 Winter range

.55 Weekly weather and crop service

.551 Section centers

.5511 Number and locations

.5512 Collection of data

.5513 Cooperative observers and correspondents

- .552 Weather and crop bulletins
 - .5521 Contents
 - .5522 Time of issue
- .553 State bulletins
 - .5531 Character
 - .5532 Time of issue
- .56 Weekly cotton, and corn and wheat region bulletins
 - .561 Character
 - .562 Where published
 - .563 Distribution
- .59 Miscellaneous
- .6 Climatological service
 - .60 General
 - .61 Reporting stations
 - .611 Classes
 - .612 Cooperative observers
 - .613 Number and distribution of cooperative stations
 - .62 Section centers
 - .621 Location
 - .63 Current meteorological publications
 - .631 Station monthly and annual reports
 - .632 Monthly State summaries
 - .633 Annual State summaries
 - .634 Annual report, chief of weather bureau
 - .635 Monthly weather review
 - .636 Meteorological tables, weekly weather and crop bulletins

- .637 Daily weather maps and weather bulletins
- .638 Climatological data
- .639 Summaries of past weather records by sections
- .64 Snow reports
 - .641 Snow in western mountains and irrigation
 - .642 Snow and ice bulletin
- .69 Miscellaneous
- .7 Climatic Tables
 - .70 General
 - .79 Miscellaneous
- .9 Miscellaneous
 - .99 Bibliography of meteorological and climatological literature.

1.9
Ext. Ec

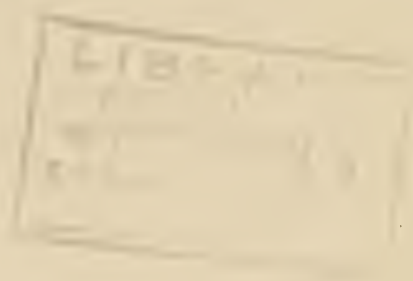
CLARIBEL R. BARNETT

Library

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.



CLASSIFICATION KEY

16. WILD LIFE

To be used as a basis of classification of material on
wild life for the Extension Service Handbook and
will be printed and issued as an appendix.

SUBJECT MATTER INDEX OF EXTENSION SERVICE HANDBOOK.

1. GENERAL
2. AGRICULTURAL ECONOMICS
3. AGRICULTURAL ENGINEERING
4. AGRICULTURAL TECHNOLOGY
5. ANIMAL DISEASES
6. ANIMAL HUSBANDRY
7. DAIRYING
8. ENTOMOLOGY
9. FERTILIZERS
10. FIELD CROPS
11. FORESTRY
12. HORTICULTURE
13. PLANT DISEASES
14. SOILS
15. WEATHER
16. WILD LIFE
17. FOODS AND NUTRITION
18. HOUSING, EQUIPMENT and FURNISHING
19. HOME MANAGEMENT
20. TEXTILES AND CLOTHING

APPENDIX - Master classification key.

16. WILD LIFE

.0 General

- .01 Educational value
- .02 Scientific value
- .03 Recreational importance
- .04 Economic relationships
- .05 Biological surveys
 - .051 Methods
 - .052 Results
 - .053 Publications
 - .054 Maps
 - .055 Catalogues
 - .059 Miscellaneous
- .06 Life-habit studies
- .09 Miscellaneous

.1 Fishes

.10 General

- .101 Classification
- .102 Distribution
- .103 Seasonal habits
- .109 Miscellaneous

.11 Harmful fishes

- .110 General
- .111 Occurrence
- .112 Destructive habits
- .113 Control measures
- .119 Miscellaneous

- .12 Food fishes
 - .120 General
 - .121 Occurrence
 - .122 Breeding habits
 - .123 Artificial culture
 - .124 Natural enemies
 - .125 Protective measures
 - .129 Miscellaneous
- .19 Miscellaneous
- .2 Amphibians (toad, frog, etc.)
 - .20 General
 - .21 Harmful species
 - .22 Useful species
 - .29 Miscellaneous
- .3 Reptiles
 - .30 General
 - .301 Classification
 - .302 Distribution
 - .309 Miscellaneous
 - .31 Harmful reptiles
 - .310 General
 - .311 Occurrence
 - .312 Destructive habits
 - .313 Control measures
 - .314 Treatment of snake bites
 - .319 Miscellaneous

.32 Useful reptiles

.320 General

.321 Occurrence

.322 Beneficial habits

.323 Protective measures

.329 Miscellaneous

.39 Miscellaneous

.4 Birds

.40 General

.401 Classification

.402 Distribution

.403 Migration

.409 Miscellaneous

.41 Harmful wild birds

.410 General

.411 Occurrence

.412 Destructive habits

.413 Control permits

.414 Control measures

.419 Miscellaneous

.42 Useful wild birds

.420 General

.421 Occurrence

.422 Beneficial habits

.423 Means of increasing

.424 Methods of attracting

.425 Protective measures

.429 Miscellaneous

.43 Game birds

.430 General

.431 Importance

.4311 Food value

.4312 Recreational value

.4319 Miscellaneous

.432 Protective measures

.433 Refuges

.434 Feed sources

.435 Game farms

.439 Miscellaneous

.49 Miscellaneous

.5 Mammals

.50 General

.501 Classification

.502 Distribution

.509 Miscellaneous

.51 Harmful wild mammals

.510 General

.511 Occurrence

.512 Destructive habits

.513 Control measures

.5131 Moles

.5132 Predatory mammals

.5133 Rodents

.5139 Miscellaneous

.519 Miscellaneous

.52 Useful wild mammals

.520 General

.521 Occurrence

.522 Beneficial habits

.523 Means of increasing

.524 Protective measures

.529 Miscellaneous

.53 Fur-bearing mammals

.530 General

.531 Protective measures

.532 Means of increasing

.533 Rearing in captivity

.534 Care of peltries

.539 Miscellaneous

.54 Game mammals

.540 General

.541 Importance

.5411 Food value

.5412 Recreational value

.5419 Miscellaneous

.542 Protective measures

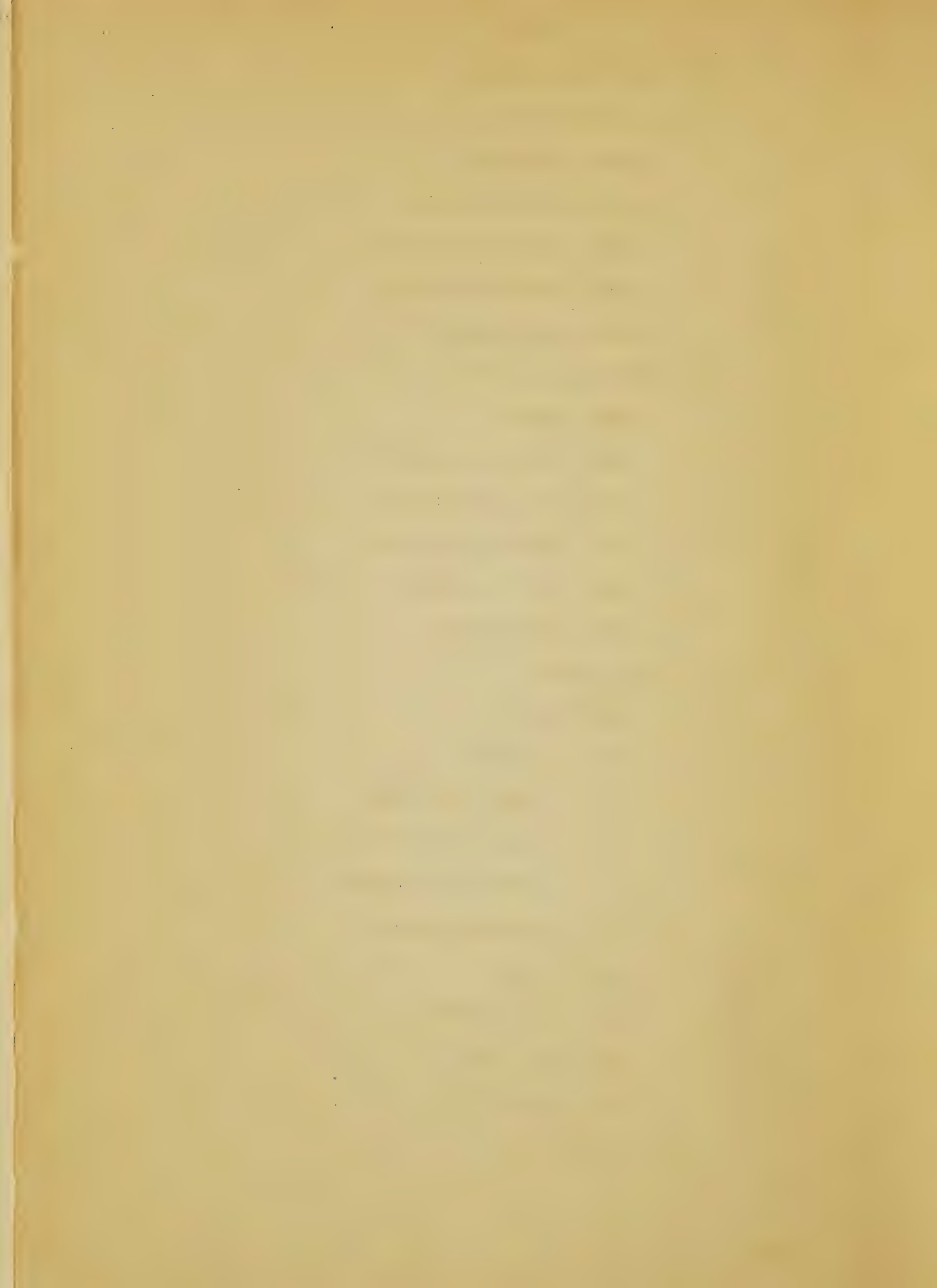
.543 Refuges

.544 Forage supply

.545 Game farms

.549 Miscellaneous

.59 Miscellaneous



.8 Regulatory work

.80 General

.81 Lacey Act

.82 Migratory bird treaty act and regulations

.83 Grazing permits in Alaska

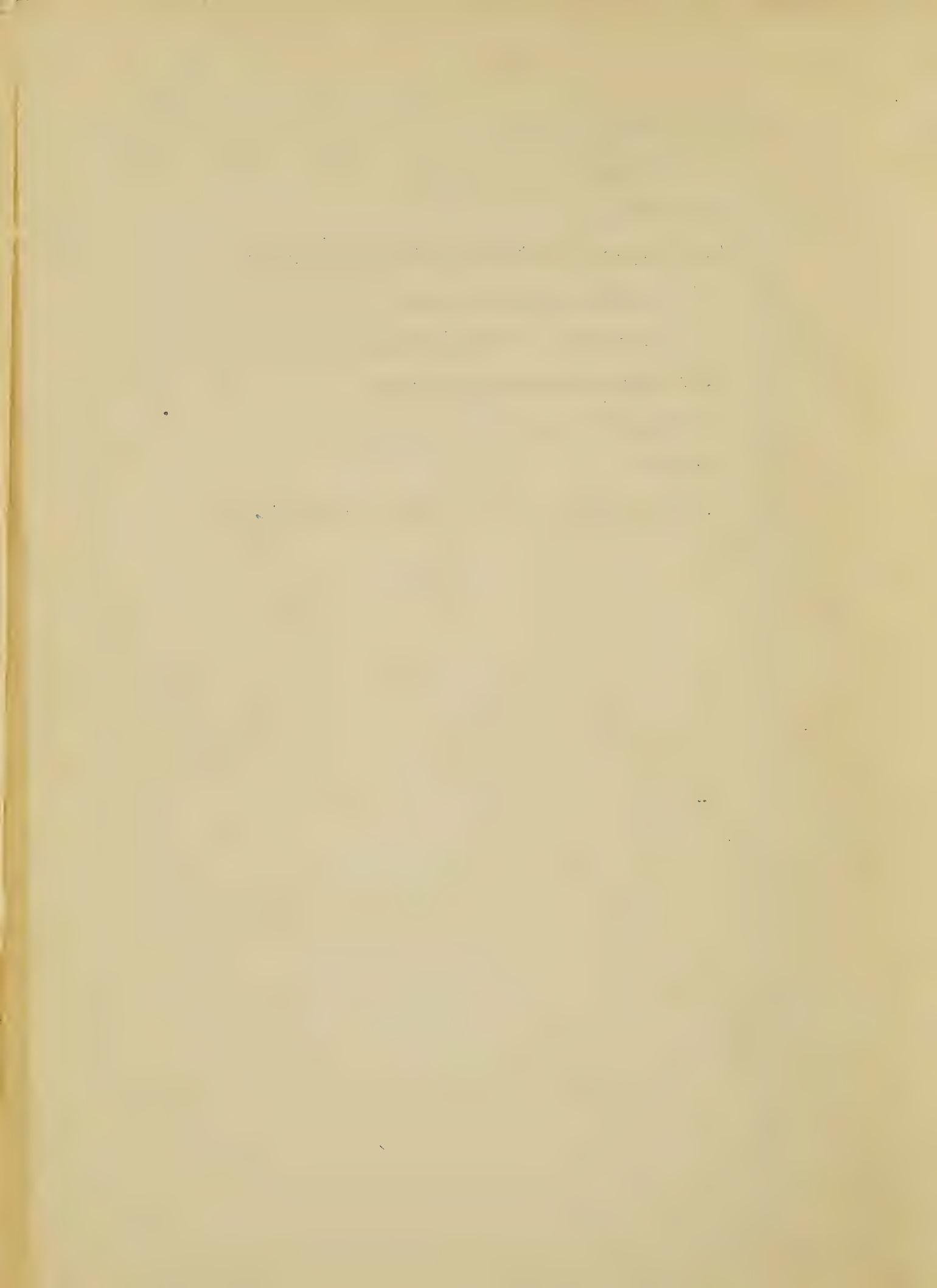
.84 Protection of land fur-bearing mammals in Alaska

.85 Protection of game in Alaska

.89 Miscellaneous

.9 Miscellaneous

.99 Bibliography of literature on wild life.



19
248922c
CLARIBEL R. BARNEIT

DEPT. LIBRARY

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.

CLASSIFICATION KEY

O. GENERAL

(To be used as a basis of classification of general
material for the Extension Service Handbook and
will be printed and issued as an appendix.)

O. GENERAL

.0 General

.01 Government organization

.1 U. S. Department of Agriculture

.10 General

.11 Bureaus and chiefs

.12 Functions of bureaus

.13 History

.14 Laws

.140 General

.141 Food and drugs

.142 Game

.143 Insects

.144 Land-grant colleges

.1441 Resident teaching

.1442 Research

.1443 Extension

.145 Livestock

.146 Plant and seed

.147 Public domain

.1471 Forestry

.1472 Homestead

.1473 Roads

.148 Standardization

.149 Miscellaneous

- .15 Publications
 - .150 General
 - .151 Types of bulletins
 - .1511 Farmers' bulletins
 - .1512 Department bulletins
 - .1513 Department circulars
 - .1514 Miscellaneous circulars
 - .1515 Statistical circulars
 - .1519 Miscellaneous
 - .152 Types of periodicals
 - .1521 Official Record
 - .1522 Experiment Station Record
 - .1523 Crops and Markets
 - .1524 Monthly Statement to Crops and Markets
 - .1525 Agricultural Situation
 - .1526 Agricultural Cooperation
 - .1527 Foreign Crops and Markets
 - .1528 State and Federal Marketing Activities
 - .1529 Miscellaneous
 - .153 Request procedure
 - .159 Miscellaneous
- .19 Miscellaneous
- .9 Miscellaneous

